CONTENTS OF SUPPLEMENT.

PERSONAL 41
Obituary 41
ENGINEERING SOCIETIES 41
Coming Technical Meetings 41
NEW PUBLICATIONS 41
Trade Publications 42
CONSTRUCTION NEWS:
Condensed List of Contracts Pending 42
Railways 43
Street and Electric Railways 43
Electric Light and Power 44
Bridges 44
Buildings 45
Water-Works 45
Irrigation 46
Sewerage 46
Garbage Disposal and Street Cleaning 46
Streets and Roads 46
Manufacturing Plants 47
Miscellaneous Contracts 47
Contract Prices 47
INDUSTRIAL NOTES 48
New Companies 48

PERSONAL.

Mr. Willis E. Myers has been appointed City Engineer of Kenton, O.

Mr. Holland Wheeler has been appointed City Engineer of Lawrence, Kan.

Mr. D. B. Miller has been elected City Engineer of Columbia, S. C., to succeed Mr. Charles C. Wilson, who intends to travel abroad.

Mr. Joseph Michaelson has resigned as City Engineer of Geneva, N. Y. He will be succeeded by Mr. Charles T. Church, M. Am. Soc. C. E.

Mr. T. W. Demarest has been appointed Master Mechanic of the Pennsylvania Lines at Logansport, Ind., to succeed the late Mr. W. C. Pennock.

Capt. James Entwistle, U. S. N., Fleet Engineer of Admiral Dewey's squadron at the Philippines, has been retired from service with the rank of Rear-Admiral.

Mr. Charles Graham, Jr., Master Mechanic at the Kingston shops of the Delaware, Lackawanna & Western R. R., has been transferred to Buffalo, to succeed Mr. F. B. Griffith.

Mr. Henry Goldmark, M. Am. Soc. C. E., of Detroit, Mich., Assistant Engineer to the Board of Engineers on Deep Waterways, has been married to Miss Mary C. Tomkins, of Detroit.

Mr. W. J. Johnston, late Proprietor of the "Electrical World," is making a tour around the world. On August 17 he is to sail from San Francisco, and will visit the Hawaiian Islands, Japan, China and Egypt.

Mr. Alexander Robertson has been appointed Acting Superintendent of the Middle Division of the Wabash R. R., to succeed Mr. W. A. Garrett, who has resigned to enter the service of the Philadelphia & Reading Ry.

Dr. J. C. Branner, Vice-President of Leland Stanford University, has just returned at the head of a scientific expedition sent out by Professor Agassiz, of Harvard University, to explore the reefs on the Brazilian coast.

Mr. H. C. McCarthy, recently Chief Inspector of the Northern Central R. R., at Williamsport, Pa., has been appointed Mechanical Expert of the Galena Oil Co., in which capacity he will look after the company's railway interests.

Mr. James K. Brassill, Assistant Master Mechanic, and for 22 years in the employ of the Chicago, St. Paul, Minneapolis & Omaha Ry. Co., has resigned to become Superintendent of Motive Power of the California & Northwestern Ry.

Mr. W. Watnabe, a well-known Japanese mining engineer, Professor of the Imperial University at Tokio, and ex-Director of the Mining Bureau of the Japanese Government, sailed for Europe from New York, on Aug. 5, on board of the "Etruria."

Mr. Harrison R. Fehr, M. Am. Soc. C. E., has resigned as City Engineer of Easton, Pa., to become Superintendent of the Easton, Palmer & Bethlehem branch of the Easton Consolidated Electric Co.'s system. Mr. Fehr has been City Engineer since 1891.

Mr. A. A. Trocon, M.Am.Soc.C.E., has resigned his position as Chief Engineer of the Missouri Valley Bridge & Iron Works, and has associated himself with Mr. Henry Freygang, C. E., as proprietors of the Midland Bridge Co., with offices in the Gibraltar Building, St. Louis, Mo.

Mr. C. H. Walton has been appointed Superintendent of the Chicago Terminal Division of the Pennsylvania Lines, with offices at Chicago, Ill. This is a new division, including all lines north of Clarke Junction, Ill. (on the P., Ft. W. & C. Ry.), and Bernice, Ill. (on the P., C., C. & St. L. Ry.).

Mr. W. G. Bayley, Superintendent of the St. Louis Division of the Cleveland, Cincinnati, Chicago & St. Louis Ry., has been transferred to the Cincinnati and Sandusky Division, in place of Mr. William Quinn, resigned. Mr. Bayley will be succeeded by Mr. W. M. Duane, Engineer of Maintenance of Way of the St. Louis Division.

Lt.-Col. Oswald H. Ernst, U. S. Engrs., the chairman of the sub-committee of three appointed by the Isthmian Canal Commission to examine the records in France on the Panama Canal, sailed for Paris on Aug. 2. Mr. Geo. S. Morison, M. Am. Soc. C. E., and Rear-Admiral John G. Walker, U. S. Navy (retired), also of the Commission, sailed on Aug. 9.

OBITUARY.

Mr. John Lewis Murray, Secretary of the Utica Pipe Foundry Co., and a director of the Utica Paving Co., died at Canandaigua, N. Y., on Aug. 4, aged 48 years.

Mr. Azor Smith Marvin, for many years President of the Marvin Safe Co., died in Brooklyn, N. Y., on Aug. 5, from a complication of diseases. He was 72 years of age.

Col. Horace Harding, M. Am. Soc. C. E., for many years United States Engineer in charge of Government work at Tuscaloosa, Ala., died at Grand Rapids, Mich., on July 30, aged 80 years.

Mr. John B. Russell, former Superintendent of the chemical laboratories of Parke, Davis & Co., died in New York city, on Aug. 6, aged 32 years. He was the son of Mr. William D. Russell, formerly President of the Baxter Steam Engine Co., of New York.

Mr. Robert Stanton Williams, President of the Central New York Telephone & Telegraph Co., and President of the Oneida National Bank, died at his home in Utica, on Aug. 6, aged 71 years. He was prominently connected with the construction of the Utica, Clinton & Binghamton R. R.

Mr. Isaac O. Blight, Superintendent of the State Line & Sullivan R. R., and the Bernice Mines, the Barclay R. R. and the Long Valley Coal Co., died suddenly at his home at Towanda, Pa., on Aug. 6. He was born in Philadelphia in 1830, and graduated from the University of Pennsylvania in 1849.

ENGINEERING SOCIETIES.

COMING TECHNICAL MEETINGS.

WISCONSIN STATE CHEMICAL ASSOCIATION.
Aug. 11. Secy., I. Ladoff, 154 Knapp St., Milwaukee, Wis.

MONTANA SOCIETY OF ENGINEERS.
Aug. 12. Butte, Mont. Secy., A. S. Hovey, Nat'l Bank Bldg., Helena, Mont.

INTERNATIONAL ACETYLENE ASSOCIATION.
Aug. 14. Special meeting and banquet; at the Great Northern Hotel, Chicago. Secy., J. B. Carroll, 34 Market St., Chicago, Ill.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS, AMERICAN SECTION.
Aug. 15, 16. Annual meeting at Pittsburg, Pa. Secy., Richard L. Humphrey, City Hall, Philadelphia, Pa.

SOCIETY FOR THE PROMOTION OF ENGINEERING EDUCATION.
Aug. 17-19. Annual meeting, Columbus, O. Secy., Albert Kingsbury, Durham, N. H.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE.
Aug. 21-26. Annual meeting at Columbus, O. Secy., Prof. Frederick Bedell, Ithaca, N. Y. Local Secy., Prof. B. F. Thomas, Columbus, O.

AMERICAN FORESTRY ASSOCIATION.
Aug. 22, 23. At Columbus, O. Secy., G. P. Whittlesey, Washington, D. C.

NEW YORK STATE ELECTRICAL CONTRACTORS' ASSOCIATION.
Aug. 29. At Buffalo. Secy., J. C. Stearns, Buffalo, N. Y.

ENGINEERS' CLUB OF TORONTO.
Sept. 5. Secy., Willis Chipman, 103 Bay St., Toronto, Canada.

CENTRAL STATES WATER-WORKS ASSOCIATION.
Sept. 5 to 7. At Cincinnati. Secy., John Fisher, Hamilton, O.

NATIONAL ASSOCIATION OF MUNICIPAL ELECTRICIANS.
Sept. 5 to 7. Wilmington, Del.

ASSOCIATION OF EDISON ILLUMINATING COMPANIES.
Sept. 12. Annual meeting, Philadelphia. Secy., Wilson S. Howell, P. O. Box 114, Newark, N. J.

ROADMASTERS' ASSOCIATION OF AMERICA.
Sept. 12 to 15. Annual meeting at Detroit. Secy., J. B. Dickson, C. & N. W. Ry., Sterling, Ill.

NEW ENGLAND WATER-WORKS ASSOCIATION.
Sept. 13 to 15. At Syracuse, N. Y. Secy., J. C. Whitney, Newton, Mass.

LEAGUE OF AMERICAN MUNICIPALITIES.
Sept. 19 to 22. At Syracuse, N. Y. Secy., B. F. Gilkison, New York city.

AMERICAN SOCIETY OF RAILWAY SUPERINTENDENTS.
Sept. 20. At Detroit. Secy., C. A. Hammond, Asbury Park, N. J.

CANADIAN ROADMASTERS' ASSOCIATION.
Sept. 20. Annual convention, at Toronto, Ont. Secy., J. Drinkwater, C. P. Ry., Winchester, Ont., Canada.

AMERICAN INSTITUTE OF MINING ENGINEERS.
Sept. 25. Annual meeting, San Francisco, Cal. Secy., R. W. Raymond, 99 John St., New York city.

EASTERN MAINTENANCE OF WAY ASSOCIATION.
Sept. 26 to 29. Portland, Me. Secy., F. C. Stowell, B. & M. R. R., Ware, Mass.

AMERICAN STREET RAILWAY ASSOCIATION.
Oct. 17. at Chicago. Secy., T. C. Penington, Chicago, Ill.

ASSOCIATION OF RAILWAY SUPERINTENDENTS OF BRIDGES AND BUILDINGS.
Oct. 17. At Detroit. Secy., S. F. Patterson, B. & M. R. R., Concord, N. H.

AMERICAN INSTITUE OF ARCHITECTS.—The Executive Committee met in Washington, July 17, and made arrangements for the next annual convention, which will be held in Pittsburg, Nov. 13-15. Papers will be read on the influence of the French school of design in architecture, ornamental design for skeleton steel structures, and on historical and other subjects. The full program will be announced shortly. Glenn Brown, Secy., Washington, D. C.

NEW YORK STATE ELECTRICAL CONTRACTORS' ASSOCIATION.—This society was organized at a convention held at Rochester, July 21, at which nearly 50 delegates were present. The next meeting will be held at Buffalo on Aug. 29. The officers are: Rudolph Schmidt, Rochester, president; David Cronin, Syracuse, vice-president; Wells Dygert, Buffalo, secretary; J. C. Stearns, Buffalo, treasurer, and M. Jervis Myers, H. J. Sackett and M. J. Almstead, finance committee.

INSTITUTION OF MECHANICAL ENGINEERS.—The summer meeting of the Institution of Mechanical Engineers of Great Britain was held at Plymouth, July 25 to 28, and was presided over by the President, Sir William White, Chief Constructor of the British Navy. Sir Frederick Bramwell, Past-President of the Institution, read an interesting historical paper, in which he described the atmospheric railway which in the early days of railroading was looked upon as a possible competitor of the locomotive. "The Launch of a Battleship" was the subject of a paper by H. R. Champness, Chief Constructor of the Devonport dockyard, which recently launched its first battleship, the "Ocean." Other papers read were the following:

"Railway Viaducts in Cornwall, Old and New," by T. H. Gibbons, Divisional Engineer, Great Western Railway, Plymouth. "The Mechanical Appliances Employed in the Construction of the Keyham Dockyard Extension Works," by Mr. Whateley Eliot, Admiralty Superintending Civil Engineer, Keyham Extension Works. "The Machinery of H. M. S. 'Proserpine,' and H. M. S. 'Psyche,' as Illustrative of the Work Done at Keyham, Particularly with Reference to the Practical Training of Engineer Students," by Mr. Robert Mayston, R. N., Chief Engineer, Devonport Dockyard. "Outlet Valves at the Burrator Reservoir of the Plymouth Water-Works," by Mr. Edward Sandeman, Borough Water Engineer.

INTERNATIONAL ASSOCIATION FOR TESTING MATERIALS.—The second annual meeting of the American Section will be held at Pittsburg, in the rooms of the Engineers' Society of Western Pennsylvania, on Aug. 15 and 16. The first session will open at ten o'clock on Aug. 15, and this will be mainly devoted to the reports of officers and the transaction of business relating to the international congress of 1900 and to the reading of a paper, "Comparison of Steel Plates under Flexure and Tension," by Prof. W. K. Hatt. The second session will be on the evening of the same day, at which the chairman, Prof. Mansfield Merriman, will give an address on the work of the association, and Mr. William R. Webster will present a report on behalf of the American sub-committee of the international committee on standard specifications for testing iron and steel. The concluding session, on the morning of Aug. 16, will be devoted to the presentation and discussion of reports of other committees on iron and steel, cement, stone and paints. A reception is tendered on the evening of Aug. 15 by the Engineers' Society of Western Pennsylvania, and excursions are announced for the afternoons to the works of the Edgar Thompson Steel Co., to the Pittsburg Testing Laboratory, and to the works of the Westinghouse Electric & Manufacturing Co.

NEW PUBLICATIONS.

LITERARY MAGAZINES.—The "Review of Reviews" for August has a very good article on the "America's Cup Race in 1899," in which previous races for the cup are reviewed and portraits are given of the two Herreshoff brothers. It is of interest to note that the new "Columbia" carries 13,500 sq. ft. of canvas with all sail set. Her mainmast is 107 ft. long and her topmast 68 ft., and this enormous top gear is sustained by a lead keel weighing 90 tons. In general she follows closely the lines of the "Defender," but carries about 1,000 sq. ft. more canvas. In the "Cosmopolitan" for August we learn of the progress of the electric railway to the Pyramids. The rails for the road are laid, the poles are up and it is probable that next winter's tourists can go by trolley "from Cairo to the Sphinx." In "Harper's," Hayti is described by Mr. Henry Sandham. We all learned a good bit of West Indian geography last summer, but Hayti was not included in the lesson. The writer of this article, however, says that every business man he talked with in Hayti expressed the greatest regret that the island was not included with Cuba and Porto Rico, in the list of goodies for Uncle Samuel, and he says himself that "Hayti would undoubtedly be an acquisition." In our opinion it would be an acquisition of the sort for which no intense yearning exists at present in the United States. Uncle Sam is not hungering and thirsting for more tropical islands just at present, thank you. He will wait until he feels better over the digestion of his last meal. Apropos of this subject, an article on the "Filipino Insurrection of 1896," by Lieut. C. G. Calkins, U. S. N., in the same magazine, is worth mention here. In the editorial columns of this issue we have made an extract from another valuable article by the same officer in a professional paper. A good many of us are curious to know more about the people in Luzon, out of whom our army is "going to lick the liver and lights"—when the rain stops; and the Lieutenant's "Harper" article sheds some interesting light on that question—light that has apparently not been turned down by an official censor either. In the same magazine Admiral Beardslee, of the Navy, has a naive article on the "Battle of Muddy Flats," an affair back in the '50's, in which a band of white men at Shanghai, fighting on their own hook, attacked a Chinese force and killed over 300. The inciting cause of the affray was an attack of some Chinese soldiers upon an English lady and gentleman the day before. One wonders how much deeper the traces of elemental savagery are beneath the surface in the white man than in the brown or yellow man after all. More instructive facts on the Philippines are furnished us in the August "Popular Science Monthly," where "Race Questions in the Philippine Islands" are discussed by Ferdinand Blumentritte. The careful and unprejudiced reader of this article may obtain some clearer idea of why the Filipinos object to American rule. The "objects of the American Association for the Advancement of Science"

are described by Prof. Edward Orton, President of the Association, in the same magazine. Prof. Orton recognizes the forces which have tended to weaken the Association's power and influence, but urges that the unifying force of the Association is still needed by scientific workers in all fields. In the "Atlantic" we find a brace of sociological articles, well calculated to provoke thought. Mr. Jacob A. Riis describes "The Tenant," as he is found in the New York slum, and shows how much good dwells even in this plague spot of our civilization. Anyone who would get a new and clearer idea of the real meaning of the socialist and anarchist movements on the continent of Europe should not fail to read Prince Kropotkin's interesting autobiography, of which the tenth instalment appears in the same magazine. The success of the government's Indian policy is told by Hon. H. L. Dawes, and the results of the Hague International Congress are discussed by Wm. Cunningham.

The August "North American Review" contains two notable articles on matters of world politics, "The Paramount Power of the Pacific," by Hon. John Barrett, by which term he designates the United States, and "Japan's Entry into the Family of Nations," T. R. Jernigan. Mr. Barrett, in the former article, urges again that the United States should object to the partition of China. It is strange that so good a diplomat as Mr. Barrett should not perceive that for us at this late day to attempt to stop the partition of China would be wholly useless. A year or more ago it might have been different; but we had other affairs to attend to then. The best we can do now is to make the best terms we can for trade in Russian China and German China and Italian China. Valuable as is Chinese trade to us, it is not so valuable that we can afford to stir up bad feeling with any of the European nations over it. They are themselves too large customers of ours to make that good business policy, if there were no other considerations. In the same magazine "Anti-Trust Legislation" is discussed by Gov. Sayers, of Texas; but the article is little more than an epitome of the new Texas statute against monopolies.

In the July "Fortnightly," Chinese matters are discussed by an English writer who appears to see the situation more clearly than Mr. Barrett. Like him he regrets that the "open door" is not established; and he sees only a bare possibility that other nations will agree to support the old commercial treaties which guaranteed freedom of trade. The August "Forum" contains a paper by Prof. Edwin H. Hall, of Harvard University, on "Liquid Air and Motive Power," in which the fallacies of Mr. Perpetual Motion Tripler are explained in so elementary a manner that he who runs may read. With these repeated warnings those who buy liquid air stocks with their eyes shut cannot complain if their expectations are not realized. In the same magazine we find a very commendatory critique of American architecture written by a German architect, who tells us that since the Chicago Exposition many German architects make it a rule to pay frequent visits to the United States to keep themselves posted upon architectural developments here.

In "McClure's" for August Mr. W. T. Stead writes on the "Cape to Cairo Ry.," which he frankly points out would, in all probability, not earn even its operating expenses, to say nothing of paying the interest on its cost; yet he thinks it not impossible that it may be built and in working order by 1909. Mr. Stead incidentally remarks that a man prominent in the councils of the Russian empire recently told him that the Siberian Ry. would never prove a profitable work. This appears to us a mistaken view. The development which may follow the opening of the Trans-Siberian road can scarcely be foreseen. It is not the climate so much as the isolation that has kept Siberia a waste. When it is brought near to civilization's centers by the railway, a large immigration may be drawn thither. In the heart of Africa, however, civilized races are held back by the climate, and there is hardly a productive region which the "Cape to Cairo" road would touch that may not be better and more cheaply reached by railways from the coast.

ANNUAL CATALOGUE OF THE AGRICULTURAL AND MECHANICAL COLLEGE OF TEXAS.—Published by the College; Secretary, W. R. Cavitt, College Station, Texas. Paper; 8vo.; pp. 100; illustrated.

The catalogue contains the courses of study, which include civil and mechanical engineering, with particulars of the classes, text books, entrance examinations, etc.

BUILDING AND ENGINEERING TRADES DIRECTORY OF THE CITY OF NEW YORK.—Published by the F. W. Dodge Co., 310 Sixth Ave., New York city. Cloth; 8vo.; pp. 436, and 136 pp. of advertisements. $5.

This annual publication contains lists of architects, engineers, contractors, builders, etc., and also lists of manufacturers of and dealers in materials, supplies and apparatus, used in the construction, equipment and furnishing of building and engineering works. It has an index of contents and an alphabetical index of names.

MUNICIPAL REPORTS.—The following annual reports have been received; unless otherwise noted the reports and the names given are those of city engineers:

Winooski, Vt., V. K. Nash. Metropolitan Sewerage Commission, report for 1898, and special report on a "High Level Gravity Sewer for the Relief of the Charles and Neponset River Valleys," Wm. M. Brown, Jr., M. Am. Soc. C. E., Boston, Chief Engineer and Superintendent. Cambridge, Mass., L. M. Hastings. Fitchburg, Mass., David A. Hartwell. Haverill, Mass., Robt. R. Evans. Lowell, Mass., Board of Health, John F. Murphy, Superintendent. Newton, Mass., H. D. Woods, M. Am. Soc. C. E. Somerville, Mass., Ernest W. Bailey. Worcester, Mass., Superintendent of Sewers, H. P. Eddy. Pawtucket, R. I., Geo. A. Carpenter. Providence, R. I., Otis F. Clapp, M. Am. Soc. C. E. Norwalk, Conn., Electrical Commissioners, Albert E. Winchester, General Superintendent. Albany, N. Y., Horace Andrews, M. Am. Soc. C. E. Buffalo, N. Y., E. B. Guthrie, M. Am. Soc. C. E., Chief Engineer Department Public Works. Geneva, N. Y., E. Seybolt, Superintendent Public Works. Little Falls, N. Y., S. E. Babcock. Poughkeepsie, N. Y., Chas. E. Fowler, Superintendent Public Works. Syracuse, N. Y., R. R. Stuart. Bloomfield, N. J., Township Reports, Wm. L. Johnson, Clerk. Public Baths Association of Philadelphia, Sarah D. Lowrie, Secretary. Scranton, Pa., Jos. P. Phillips. Wilmington, Del., Street and Sewer Department, T. C. Hatton, M. Am. Soc. C. E., Engineer. Wheeling, W. Va., A. L. White. Coldwater, Mich., T. J. Turner, M. D., Health Officer. Chicago, Ill., L. E. McGann, Commissioner Public Works; John Ericson, City Engineer, Peoria, Ill., Department of Public Works, Almon D. Thompson. Milwaukee, Wis., Geo. H. Benzenberg, M. Am. Soc. C. E. Marshalltown, Ia., Wm. Bremner. Minneapolis, Minn., F. W. Cappelen. Kansas City, Mo., Henry A. Wise. Denver, Colo., Report on "The Capitol Hill Storm Sewer District No. 1," Harvey C. Lowrie, M. Am. Soc. C. E., Engineer Board of Public Works. Oakland, Cal., M. K. Miller, Superintendent of Streets. St. John, N. B., Wm. Murdoch, Engineer Department Public Works. Hamilton, Ont., E. G. Barrow.

TRADE PUBLICATIONS.

(The standard sizes for pamphlets and trade catalogues recommended by all the principal engineering societies of the United States are: 3½ x 6 ins., 6 x 9 ins., and 9 x 12 ins.)

BRAZING BY IMMERSION.—The Joseph Dixon Crucible Co., Jersey City, N. J. Paper; 6½ x 9 ins.; pp. 40; illustrated.

This is an article reprinted from the "Cycle Age," describing methods of brazing for bicycle frames, with the apparatus and crucibles used.

MINERALS AND MINES ALONG THE SOUTHERN RAILWAY.—Issued by the Land and Industrial Department, Southern Ry., Washington, D. C. Paper; 6¾ x 9½ ins.; pp. 27; illustrated.

This pamphlet describes the iron, coal, gold, corundum, bauxite and other deposits, and also the mining development, coal trade, iron and steel industries, etc., of the states tributary to this railway.

ROASTING, SMELTING AND REFINING MACHINERY.—Fraser & Chalmers, Chicago, Ill. Paper; 6 x 9 ins.; pp. 168; illustrated.

The descriptions and illustrations of roasting, refining and smelting machinery and its accessories, which are given in this catalogue, are unusually complete and well presented for such publications. It is quite impossible to give in a brief form even the names of the different devices, and we would urge any of our readers who are interested to secure the catalogue for their pamphlet library.

MARINE RAILWAYS.—H. I. Crandall & Son, East Boston, Mass. Paper; 11 x 8 ins.; pp. 16; illustrated.

The marine railway is a substitute for dry-docks, and consists of a species of cradle running on an inclined track extending under the water. The vessel is floated over the cradle, adjusted to the keel blocks and then drawn ashore. They are mostly used for small craft, but one of the illustrations shows a moderate sized steamer on such a railway, and the pamphlet states that the builders are prepared to erect them for any size and class of vessels.

AUTOMATIC FLUSH TANKS.—Frank Walker, Patentee, 748 West First St., Los Angeles, or 916 Baltimore Ave., Kansas City, Mo. Paper; 5 x 8 ins.; pp. 11; illustrated.

This pamphlet describes an automatic flush tank having a double siphon and double trap. The ordinary trap has a smaller one within it. The dome, or bell, is double, with passages running up opposite sides, between the two domes, and joining at the top in a vertical pipe that extends downwards towards the traps. The air is supposed to pass through the small trap, leaving the large one to discharge water to its full capacity.

NATURAL VENTILATION.—Robert Boyle & Son, 64 Holborn Viaduct, London, England. Paper; 5 x 7 ins.; pp. 24; illustrated.

This pamphlet contains a discussion of ventilation designed to show the superiority of Boyle's air pump system of ventilation. The system seems to consist of a number of gas burners placed at the highest point of the ventilating ducts of a building. The current of vitiated air passes through a double conical grill, filled between with perforated asbestos balls, the asbestos being subjected to the heat from the burners. This feature of the system is designed to consume disease germs.

A SYSTEM OF ENGINES.—Harrisburg Foundry & Machine Works, Harrisburg, Pa. Half leather; 5 x 7¼ ins.; pp. 110; illustrated.

Considerable money has evidently been expended to give this catalogue an attractive form and appearance. It describes quite fully the system of engines which the firm manufactures and which comprises 22 styles or types of engines designed to meet different conditions of service, each of which is built in various sizes from 6 HP. to 3,000 HP. Several pages of tables containing useful engineering information conclude the book, but it is chiefly interesting for the complete manner in which it describes the development and nature of the special system of engines which the company has designed. The catalogue comes in two forms, one of which has paper covers and is designed for general distribution, while the other is a special library form intended for selected circulation among mechanical and electrical engineers.

CONSTRUCTION NEWS.

CONDENSED LIST OF CONTRACTS PENDING WITH DATE OF OPENING BIDS.

Bids to be opened.	Work.	Place.	See Eng. News.
Aug. 10.	Flushing apparatus,	Honolulu, H. I.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 10.	Brick paving,	Charleston, W. Va.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 10.	Light-house dwelling,	Mobile, Ala.	July 13
	Advertised, Eng. News, July 13 to Aug. 3.		
Aug. 10.	Fire Hose,	West New York, N. J.	Aug. 10
Aug. 11.	Water mains, etc.,	Ballston Spa, N. Y.	Aug. 10
Aug. 11.	Lumber,	Albany, N. Y.	Aug. 3
	Advertised, Eng. News, Aug. 3 to 17.		
Aug. 11.	Water pipe, valves, etc.,	Buffalo, N. Y.	Aug. 3
Aug. 11.	Brick paving,	Mechanicsville, N. Y.	Aug. 3
Aug. 12.	Levee work,	Vicksburg, Miss.	Aug. 3
Aug. 12.	Navy yard shops,	Brooklyn, N. Y.	Aug. 3
Aug. 12.	Removing rock,	San Francisco, Cal.	June 8
	Advertised, Eng. News, June 8 to 29.		
Aug. 12.	Dredging,	New York, N. Y.	July 13
	Advertised, Eng. News, July 13 to Aug. 3.		
Aug. 12.	Hydraulic cement,	Cincinnati, O.	July 13
	Advertised, Eng. News, July 13 to Aug. 3.		
Aug. 12.	Waterproof asphalt,	Philadelphia, Pa.	July 13
	Advertised, Eng. News, July 13 to Aug. 3.		
Aug. 12.	Electric plant,	Monroe, Mich.	Aug. 10
Aug. 14.	Street sprinkling,	New Haven, Conn.	Aug. 10
Aug. 14.	Heating,	Hallowell, Me.	Aug. 10
Aug. 14.	Asphalt paving,	Cortland, N. Y.	Aug. 10
Aug. 14.	Immigrant station,	Ellis Island, N. Y. H.	July 20
Aug. 14.	Electric lighting,	Plymouth, Ind.	July 20
	Advertised, Engineering News, July 20.		
Aug. 14.	Sewers,	Washington, D. C.	July 27
	Advertised, Engineering News, July 27.		
Aug. 14.	Water-works,	Vernon, B. C.	July 27
Aug. 14.	Water-works,	Cullman, Ala.	July 27
Aug. 14.	Paving,	Atlantic City, N. J.	July 27
	Advertised, Engineering News, July 27.		
Aug. 14.	Bridge,	Anderson, Tex.	Aug. 3
Aug. 14.	Hospital building,	Evansville, Ind.	Aug. 3
Aug. 14.	Bonds,	Augusta, Me.	Aug. 3
Aug. 14.	Bridge,	Chillicothe, O.	Aug. 3
Aug. 14.	Asphalt paving blocks,	Washington, D. C.	Aug. 3
Aug. 15.	Waterproofing tank,	Mount Vernon, N. Y.	Aug. 3
	Advertised, Eng. News, Aug. 3 and 10.		
Aug. 15.	Heating,	Minneapolis, Minn.	Aug. 3
Aug. 15.	Superstructure to bridge,	St. Paul, Minn.	Aug. 3
Aug. 15.	Artesian well,	Anderson, Tex.	July 27
Aug. 15.	Addition to post office,	St. Paul, Minn.	July 27
Aug. 15.	Sewage disposal works,	Marion, Ia.	July 27
	Advertised, Engineering News, July 27.		
Aug. 15.	Bridge,	Pulaski City, Va.	July 27
Aug. 15.	Electric plant,	Abbeville, S. C.	July 13
Aug. 15.	Supplies,	Tompkinsville, (S. I.) N. Y.	July 20
	Advertised, Eng. News, July 20 and 27.		
Aug. 15.	Bridges,	Urbana, Ill.	Aug. 10
Aug. 15.	Addition to electric plant,	Philadelphia	Aug. 10
Aug. 15.	Electric plant,	Havre de Grace, Md.	Aug. 10
Aug. 15.	Bridge,	Cambridge, Mass.	Aug. 10
Aug. 15.	Water pipe,	Nottingham, England.	Aug. 10
Aug. 15.	Sluice gate,	Cleveland, O.	Aug. 10
Aug. 16.	Life saving station,	Nahant, Mass.	Aug. 10
Aug. 16.	Fire station,	Cleveland, O.	Aug. 10
Aug. 16.	Water-works,	Sun Prairie, Wis.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Aug. 16.	Life-saving station,	Charlevoix, Mich.	Aug. 10
Aug. 16.	Water-works,	Augusta, Ark.	Aug. 10
Aug. 16.	College building,	Urbana, Ill.	July 27
Aug. 16.	Heating, elevators, etc.,	Danville, Ill.	Aug. 3
Aug. 16.	Boiler,	New York, N. Y.	Aug. 3
Aug. 16.	Court house,	Marshall, Tex.	Aug. 3
Aug. 16.	Life saving station,	Grand Marais, Mich.	Aug. 3
Aug. 17.	School building,	Madisonburg, O.	Aug. 3
Aug. 17.	Water pipe,	Hardwick, Mass.	Aug. 10
Aug. 16.	Paving,	Logansport, Ind.	Aug. 10
Aug. 17.	Improving pond,	Boston, Mass.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Aug. 17.	Macadamizing,	Bucyrus, O.	Aug. 10
Aug. 18.	Electric plant,	Motherwell, England.	Aug. 10
Aug. 18.	Water-works,	Howard, S. Dak.	Aug. 10
Aug. 18.	Paving,	Bay City, Mich.	Aug. 10
Aug. 18.	Brick paving,	St. Louis, Mo.	Aug. 10
Aug. 19.	Bridge,	Cincinnati, O.	Aug. 10
Aug. 19.	Brick sidewalks,	Evansville, Ind.	Aug. 10
Aug. 20.	Dredging,	Franklin, Pa.	Aug. 3
Aug. 21.	Paving and curbing,	Dayton, O.	July 27
Aug. 21.	Intercepting sewers,	La Crosse, Wis.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 21.	Dredging,	Savannah, Ga.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 21.	School building,	Erie, Pa.	Aug. 3
Aug. 21.	School building,	Paullina, Ia.	Aug. 3
Aug. 21.	Dock,	Kenosha, Wis.	Aug. 3
	Advertised, Eng. News, Aug. 3 to 17.		
Aug. 21.	Electric plant bonds,	Redwood City, Cal.	Aug. 3
Aug. 21.	Bridge,	Bement, Ill.	Aug. 10
Aug. 21.	Court house,	Rossland, B. C.	Aug. 10
Aug. 21.	School building,	Steelrun, O.	Aug. 10
Aug. 21.	Village hall,	McIntosh, Minn.	Aug. 10
Aug. 21.	Cement sidewalks,	Des Moines, Ia.	Aug. 10
Aug. 22.	Electric plant,	Bellaire, O.	Aug. 10
Aug. 22.	Main sewers,	South Nyack, N. Y.	Aug. 10
	Advertised, Engineering News, Aug. 10.		
Aug. 22.	Bridge bonds,	Indianapolis, Ind.	Aug. 10
Aug. 22.	Bridge,	La Moure, N. Dak.	Aug. 10
Aug. 22.	Bridge,	Downieville, Cal.	Aug. 10
Aug. 22.	Removing wreck,	Boston, Mass.	Aug. 10
Aug. 22.	Pier,	Ottawa, Ont.	Aug. 3
Aug. 22.	Jetty work,	Norfolk, Va.	July 27
	Advertised, Eng. News, July 27 to Aug. 10.		
Aug. 23.	Lease of water power,	Chicago, Ill.	July 6
	Advertised, Engineering News, July 6.		
Aug. 23.	Pipe sewer,	Columbus, O.	Aug. 3
Aug. 23.	Bridge,	Columbus, O.	Aug. 3
Aug. 23.	Library building,	Madison, Wis.	Aug. 10
Aug. 23.	Water bonds,	Pratt City, Ala.	Aug. 10
Aug. 23.	Electric plant,	Waupun, Wis.	Aug. 10
Aug. 23.	Water-works, etc.,	South Brooklyn, O.	Aug. 10
Aug. 24.	Bridge,	St. Clairville, O.	Aug. 10
Aug. 24.	Tunnel, sewers, tank, etc.,	Plymouth, Eng.	Aug. 10
Aug. 25.	Brick paving,	McConnellsville, O.	Aug. 3
Aug. 25.	Capitol annex,	Charleston, W. Va.	July 27
Aug. 26.	Dredging,	Boston, Mass.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 26.	Dredging,	New York, N. Y.	July 27
	Advertised, Eng. News, July 27 to Aug. 17.		
Aug. 26.	Dry-dock,	Lewiston, Me.	July 27
Aug. 26.	Crane,	League Island Navy Yard, Pa.	July 27
Aug. 26.	Street improvements,	Nelsonville, O.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 26.	Dredging,	Milford Haven, Va.	Aug. 3
	Advertised, Engineering News, Aug. 3.		
Aug. 26.	Electric plant and lighting,	Evansville, Ind.	Aug. 10
Aug. 26.	School building,	Glen Ullin, N. Dak.	Aug. 10
Aug. 28.	Electric plant,	Perth, Scotland.	Aug. 10
Aug. 28.	Bridge,	Marietta, O.	Aug. 10
Aug. 28.	Bridge,	Shelbyville, Ind.	Aug. 10
Aug. 28.	Road,	Mobile, Ala.	Aug. 10

Aug. 28. Improving water-works, East Ashford, Eng. Aug. 3
Aug. 28. Paving, Toledo, O. Aug. 3
Aug. 28. Macadamizing, Richland Center, Wis. Aug. 3
Advertised, Engineering News, Aug. 3.
Aug. 28. U. S. Building, Boise, Idaho. Aug. 3
Aug. 28. Suction dredge, Charleston, S. C. July 20
Advertised, Eng. News, July 20 to Aug. 10.
Aug. 28. Hydraulic dredge, Grand Rapids, Mich. July 20.
Advertised, Eng. News, July 20 to Aug. 10.
Aug. 29. Breakwater, Gloucester Harbor, Mass. Aug. 3
Advertised, Eng. News, Aug. 3 to 31.
Aug. 29. Bridge, Newark, N. J. Aug. 10
Advertised, Engineering News, Aug. 10.
Aug. 29. U. S. building work, Buffalo, N. Y. Aug. 10
Aug. 29. Dormitories, Dulce, N. Mex. Aug. 10
Aug. 29. Dredging, Norfolk, Va. Aug. 10
Advertised, Eng. News, Aug. 10 and 17.
Aug. 30. Bridge, Indianapolis, Ind. Aug. 10
Aug. 30. U. S. building, St. Paul, Minn. Aug. 10
Aug. 30. Paving brick, Danville, Va. Aug. 10
Advertised, Eng. News, Aug. 10 to 24.
Aug. 30. Army buildings, San Francisco, Cal. Aug. 3
Aug. 30. Court house, Auburn, Neb. Aug. 3
Aug. 30. School building plans, Seattle, Wash. July 13
Aug. 31. Railway (124 miles), Vera Cruz, Mexico. July 6
Aug. 31. Steel bridge, Mexico, Mexico. July 6
Aug. 31. Court house, Ellaville, Ga. July 20
Aug. 31. College building, College Station, Tex. Aug. 3
Aug. 31. Electric plant, London, England. Aug. 3
Aug. 31. School building, Jersey City, N. J. Aug. 10
Aug. 31. Bridge, Des Moines, Ia. Aug. 10
Advertised, Engineering News, Aug. 10.
Aug. 31. Postoffice building, Newport, Ky. Aug. 10
No date. Plans for jail, Norfolk, Va. July 27
Advertised, Eng. News, July 27 to Aug. 17.
No date. Sewers, Lorain, O. Aug. 3
" Street lighting, Islip, N. Y. Aug. 3
Advertised, Engineering News, Aug. 3.
No date. Water pumps, etc., Middletown, Del. Aug. 10
Advertised, Engineering News, Aug. 10.

RAILWAYS.

ALBANY & HUDSON RY. & POWER.—This company was incorporated in New York, Aug. 5, with a capital stock of $2,500,000, to build and operate eight miles of steam railway from Nassau to Niverville, N. Y. Louis B. Grant and A. L. Brougham, Brooklyn, N. Y., and Thos. S. White, New York, are directors, with headquarters at Hudson, N. Y.

ALGOMA CENTRAL.—Bids are being received, according to reports, for cutting ties, grubbing and clearing right of way, grading road and rock-cutting for the Michipicoten branch of this railway. F. H. Clergue, Pres.; J. A. Wilde, Ch. Engr., both of Sault Ste. Marie, Ont.

ALLEGHENY TERMINAL.—This company was incorporated in Pennsylvania, July 28, with $150,000 capital stock, to construct a terminal steam railway. C. H. McCauley, Pres., Ridgway, Pa.; A. Iselin, Jr., New York, and J. M. Floesch, Kittanning, Pa., are incorporators.

ARGENTINE.—Press reports state that the Argentine minister of public works and the Buenos Ayres & Rosario and Central Argentine railway companies have agreed upon the construction of the new Ritero station. Both companies are to make use of the viaduct constructed by the Rosario Ry. Co. A commission of engineers dispatched by the Central Argentine Ry. Co. to report on the prospects of a line from Villa Mercedes to San Rafael is of the opinion that the construction of the line is feasible and that it would open up the rich San Rafael mineral district. This undertaking will mean that extensive purchases will have to be made, and while the capital invested is mostly British, it is well known that equal chances will be given to American equipment and rolling stock.

BALTIMORE & OHIO SOUTHWESTERN.—The improvements that are being made to this road between Parkersburg, W. Va., and East St. Louis, Ill., are rapidly being pushed to completion. Seventeen thousand tons of 85-lb. steel rails have been placed in the track, and 25,000 tons more are to come, delivery being delayed on account of rush of orders at the mills. The company has also put in 125 miles of gravel ballast, and expects to get out 200 miles more during the season. A great many grade reductions and changes in line are also being made between Cincinnati and St. Louis. The purpose is to make a uniform one-half of 1% grade between Cincinnati and St. Louis, as well as to eliminate a large amount of objectionable curvature. At one point, for instance, the line is to be shortened 1½ miles, 360° of curvature eliminated and seven bridges abandoned.

BANGOR & AROOSTOCK.—A. E. Trites, Van Buren, Me., has taken a contract to ballast and lay rails on the Van Buren extension of this line; about 300 car loads of rails will be required. M. Burpee, Ch. Engr., Houlton.

CANADIAN PACIFIC.—Reports from Spokane, Wash., state that contracts have been let to Breckenridge & Lund and to Grant & Shady for constructing a portion of a new branch line from Cranbrook to the North Star and Sullivan mines near Fort Steele, in the Kootenay District, B. C., a distance of 28 miles.

CENTRAL NEW YORK & WESTERN.—The state railroad commissioners have granted the application of the Central New York & Northern R. R. Co. for permission to construct an extension of the Central New York & Western R. R. from Macedon to Perkinsville, 60 miles. A certificate of the consolidation of these two companies has also been filed, with a capital stock of $3,500,000.

COLOMBIA.—It is announced that a contract has been signed by the minister of the treasury of Colombia and Don Pablo Pinzon for the construction of a railway to connect the district of Bocas del Toro and Chiriqui, in the department of Panama. Work is to be completed within ten years. Work on the Cauca Ry. is actively progressing, and with financial aid from the government it is said that the road could be carried as far as El Valle within the next four years.

DAVENPORT, CLINTON & EASTERN.—McDonald & Kenefick, New York, are reported to have been awarded the contract for constructing this proposed railway from Davenport to Clinton, Ia. Work is to be begun at once and be completed by Dec. 1. The contract for the ties has been let to the Moss Tie Co., St. Louis, Mo. H. B. Schuler, Pres.; J. W. Gates and John Lambert, Chicago, Ill., are interested.

EASTERN OKLAHOMA.—This company was incorporated in Oklahoma, July 25, with $2,200,000 capital stock, to build three new lines of the Santa Fe route in Oklahoma. Line No. 1 will start from a point on the Santa Fe main line near Guthrie, and go eastward to a point on the west of the Creek nation, thence to the most suitable point south of the Cimarron River and north of township 16 north; 60 miles. The second line will run from the Santa to a point near the confluence of the Cimarron and Arkansas rivers, via Pawnee; 65 miles. The third line will run from Pawnee county north, via Stillwater, Pawnee and Pawhuska, to the Kansas, Oklahoma Central & Southwestern lines at or near Bartlesville. Henry E. Asp and W. H. Merten, Guthrie, Okla., and F. T. Dolan, of Wichita, Kan.

MATE CREEK & LOGAN COUNTY.—C. W. Campbell, Huntington, W. Va., informs us that this company has not yet been fully organized, but that it is a project backed by Philadelphia capitalists, who intend to reach their coal lands by this ten-mile steam railway.

MONONGAHELA & WESTERN.—This company was incorporated in Pennsylvania, Aug. 2, with $20,000 capital stock, to construct a steam railway in Washington and Greene counties. S. J. Macfarren Pres., Pittsburg, Pa.; F. C. Milliken, Brownsville, Pa., and W. M. Oberlin, McKeesport, Pa., are incorporators.

NORFOLK & WESTERN.—L. H. Vaughan & Co., Roanoke, Va., are reported to have received the contract for constructing six more miles of second track between Montgomery and Elliston, Va. The contractors have about completed the second track from Christiansburg to Montgomery. The new stretch is down the east side of the Allegheny mountains, where the cuts are heavy and mostly through solid rock. Two tunnels will be blown out. When this is completed the company will have over 50 miles of double track, besides the sidings. Chas. S. Churchill, Engr. Maintenance of Way, Roanoke, Va.

PENNSYLVANIA, WEST OF PITTSBURG.—Thos. Rodd, Ch. Engr., Pittsburg, Pa., informs us that the contract for the 60 miles of grading on the western division, Pittsburg, Fort Wayne & Chicago Ry., has been awarded to Dorwin, Young & Co., Chicago, Ill.

PONTIAC & PACIFIC JUNCTION.—Reports state that work has been commenced on the extension of this railway from Aylmer to Hull. Nine men, under N. St. Pierre, Ottawa, Ont., have commenced operations at a point about 1½ miles west of Deschene. It is said that more men will be employed at an early date.

PORTUGAL.—Bids are being received by the minister of foreign affairs, Lisbon, Portugal, for the construction and operation of a railway on the island of St. Michael. The definite security to be deposited is 60,000,000 reis (about $60,000).

RICHMOND, PETERSBURG & CAROLINA.—We are informed that work on this line is being vigorously pushed by the general contractors, the J. P. McDonald Co., 33 Wall St., New York, with headquarters for this work in Petersburg, Va. Track on the southern end is laid 5½ miles from the junction with the Seaboard Air Line, near Ridgeway, N. C., and it is extending daily towards the Roanoke River, ten miles from the Seaboard Air Line. Materials for erecting a bridge over the Roanoke are on hand, and no time will be lost in erecting the same. North of the Roanoke, 8 miles of track have been laid southward from Lacrosse junction with the Atlantic & Danville. Beyond that point towards Richmond the work of grading and bridging the road is going on rapidly, in the hands of a construction force employed by the general contractors, assisted by numerous sub-contractors. An early completion of the line may reasonably be expected. R. B. Seymour, Ch. Engr., Chamber of Commerce, Richmond.

SABINE HARBOR & NORTHERN.—The charter of this company, capitalized at $150,000, has been approved of in Texas. It is proposed to build from Sabine, Tex., to a point on the Houston, East & West Texas in Shelby county, 135 miles. Joseph O. Osgood, Mgr. of Sabine Land & Improvement Co., Sabine, is said to be interested.

SPALDING & CEDAR VALLEY.—This company has been incorporated in South Dakota. It is proposed to construct a line from Spalding to Cedar Rapids, Neb.

SUMMER PHOSPHATE CO.—Reports state that Fidler, Carmichael & Soper have been awarded the contract for constructing a railway from the main line of the Louisville & Nashville Ry. to the phosphate fields of the Summer Phosphate Co., Gallatin, Tenn.

TIFTON & FLORIDA.—Incorporated in Florida, with a capital stock of $100,000, to construct a line from Tifton to Bainbridge, Ga., about 85 miles. J. T. Hill, Cordele, Ga.

VENEZUELA.—Press reports state that W. T. Hotchkiss, of Hotchkiss & Willcox, 50 Broadway, New York, has secured from the Venezuelan government a concession for a railway to run from Puerto Cabello, on the Caribbean Sea, to Barquisimeto, via San Felipe and Yaritagua. There will be a single narrow-gage track, with light grades and few bridges.

VIRGINIA & SOUTHWESTERN.—Reports state that work is now being rushed on the 30-mile extension of this railway in Carter and Johnson counties, Tenn. The road has been graded as far as Stoney Creek, 12 miles. Three miles of the extension, through what is known as the "Horse Shoe," is over a rough route, and will be very difficult of construction. The preliminary survey has been made as far as Butler, Johnson county. An iron bridge company has an engineer on the ground, preparing plans and estimates on the river crossings. C. K. Mount, Supt. of Construction, has advertised for 2,000 laborers, to work for six months. F. R. Barrett, Ch. Engr., Bristol, Va.

WADLEY & MOUNT VERNON.—This company has been granted two amendments to its charter in Georgia, allowing it to construct one branch from Wadley to Augusta and another from Rixville to Valdosta, Ga. T. J. James, Pres. and Gen. Supt., Wadley, Ga.

WASHITA VALLEY.—F. T. Cook, Pres., Cloud Chief, Okla., informs us that the construction of this line will probably be undertaken in the fall. Not all the capital has been secured, but the company has good assets. It is intended to build for 20 miles into a country rich in stucco and cement. H. N. Berry, Ch. Engr., Cloud Chief.

WASHINGTON & GREENE.—Incorporated in Pennsylvania, Aug. 3, with $20,000 capital stock, to construct a steam line in Washington and Greene counties. Homer Shoemaker, Pres., and C. M. McKelvey, of Harrisburg.

WEST BRANCH VALLEY.—A. V. Hoyt, Ch. Engr., Philipsburg, Pa., informs us that the surveys have been partly completed, part of the right of way obtained and the capital secured for this proposed line from Clearfield to Williamsport, via Karthaus and Lock Haven, Pa., 115 miles. The time for letting contracts has not yet been decided upon.

WHITE PASS & YUKON.—Reports state that this system, comprising the lines of the Pacific & Arctic Ry. & Navigation Co. and of the British Columbia, Yukon & British Yukon Ry., Transportation & Navigation Co., will be formally turned over to its owners, Close Bros. & Co., on Aug. 20, by the contractor, the Pacific Contract Co., Ltd. The 40-mile stretch between Skaguay and Lake Bennett was constructed at a cost of $2,000,000, exclusive of equipment and rolling stock. It is said that the extension of the line to Fort Selkirk will begin at once and continue until winter. E. C. Hawkins, Ch. Engr., Dexter-Horton Bank Bldg., Seattle; J. Heney, Local Agt. of Pacific Contract Co., Seattle, Wash.

WYOMING SOUTHERN.—Rhodes Bros., Denver, Colo., are reported to have received the contract for constructing the proposed line from Fort Steele to Saratoga, Wyo., 33 miles, work to be completed by Oct. 15. An extension to Grand Enchantment, 44 miles further, is proposed. T. J. Milner, Ch. Engr., Denver.

STREET AND ELECTRIC RAILWAYS.

GORHAM, ME.—A decision has been rendered by the court of this state which is favorable to the construction of an extension of the Portland R. R. from Westbrook to Gorham by the Portland Extension Co.

SKOWHEGAN, ME.—The extension of the Skowhegan & Norridgewock Ry. & Power Co.'s line to Smithfield is being agitated. E. M. Goodall, Pres.

HYANNIS, MASS.—Surveys are being made, according to reports, for an electric railway through this town.

MEDFIELD, MASS.—The Medfield & Needham St. Ry. Co. is being organized to build a line from North and Main Sts., Medfield, to the Needham & Boston, Natick & Cochituate and Newton & Boston systems, about nine miles. Horace B. Parker, Newtonville, Mass., and W. M. Chapman, Needham, are directors.

MONSON, MASS.—Reports state that F. T. Ley & Co., Springfield, Mass., who are to construct the Monson St. Ry., will soon begin the heavy excavation work. It is expected to push the work.

NORTON, MASS.—The stockholders of the four electric street traction companies in Norton have decided to consolidate under the name of the Norton & Taunton Electric St. Ry. Co. Bonds amounting to $300,000 or $400,000 will be issued, and the four lines run under one management. George Swazey, Pres.; Douglas A. Brooks, Gen. Mgr.

WARREN, MASS.—The selectmen have granted a franchise to the Warren, Brookfield & Spencer St. Ry. Co. N. S. Myrick, Pres., Brookfield.

NEW HAVEN, CONN.—It is announced that the Winchester Ave. R. R. Co. has decided to make a number of important improvements, including the reconstruction of the Sylvan Ave. track, the building of the proposed line through Winthrop Ave. to the Mapledale cemetery and the erection of a new car barn in West Haven. W. B. Ferguson, Pres., Boston, Mass.; A. E. Pond, Supt.

BUFFALO, N. Y.—Reports state that the Buffalo, Fredonia & Dunkirk Ry. Co., capitalized at $1,000,000, will soon be incorporated by capitalists represented by Anthony Schmidt, Prudential Bldg., Buffalo. The Osborn Engineering Co., Osborn Bldg., Cleveland, O., is said to have received the contract for surveying and for superintending the construction work. It is proposed to construct a double-track electric railway between Buffalo and Dunkirk, via Silver Creek, Westfield, Lily Dale and Brocton.

LOCKPORT, N. Y.—The council granted the application of the International Traction, of Buffalo, Aug. 2, for permission to build a belt line extension of the Buffalo & Lockport Ry. in the northern part of this city.

YONKERS, N. Y.—The application of the Union Ry. Co., of New York, for an extension of 20 miles in the streets of this city, was granted by the aldermen on Aug. 3. One of the new lines will form a more direct connection with New York, and another will be the connecting link between here and White Plains.

NEWARK, N. J.—Reports state that the car-barn of the North Jersey Traction Co. was destroyed by fire Aug. 2, and five snow-sweepers, 69 cars, besides other material, were burned; reported loss, $140,000. The power-house escaped destruction.

PATERSON, N. J.—Press reports state that the New Jersey Electric Ry. was sold to the White Line Traction Co., Aug. 2, for $4,000,000. The trolley roads of Northern New Jersey are now all owned by three companies, the North Jersey St. Ry., the Orange & Passaic Valley and the White Line Co., and probably will eventually be merged into one. Vice-President Hobart, Bernard M. Shanley, E. F. C. Young and others are interested in all the companies.

TRENTON, N. J.—The Mercer County Traction Co. has been incorporated, with $100,000 capital stock, by Henry C. Moore and F. W. Roebling, Trenton; John A. Rigg, Reading, Pa., and others.

ALLENTOWN, PA.—The Allentown & Coopersburg St. Ry. Co. was incorporated Aug. 4, with $50,000 capital stock, to construct an electric street railway. Hugh E. Crilly, Pres.; Walter J. Saeger and Patrick F. Cannon, all of Allentown, are incorporators.

CARBONDALE, PA.—The Carbondale Traction Co.'s electric railway, between Archbald and Forest City, 18 miles in length, was bought by the Scranton Traction Co., Aug. 1, thus giving the latter entire control of the street car lines of Lackawanna Valley.

LATROBE, PA.—The Latrobe Ry. Co. was incorporated Aug. 7, with $18,000 capital stock, to construct an electric street railway in Latrobe. John McFadyen, Pres.; John B. Anderson and James Peters, all of Latrobe, are incorporators.

MERION STATION, PA.—The Merion Electric Ry. Co. was incorporated Aug. 1, with $40,000 capital stock, to construct an electric street railway in Montgomery county. Wm. G. Huey, Pres., Philadelphia, Pa.; J. O. Gilmore, Wayne, Pa., and Richard Hamilton, Gladwyn, Pa., are incorporators.

WEST ELIZABETH, PA.—The West Elizabeth & Dravosburg St. Ry. was incorporated Aug. 4, with $42,000 capital stock, to construct an electric street railway. A. M. Pierce, Pres., West Elizabeth; A. G. Wilson, Coal Valley, Pa., and S. A. Bryce, Elizabeth, Pa., are incorporators.

RICHMOND, VA.—Councilman Pollock is agitating the question of municipal ownership of the street railways and conduits.

ROANOKE, VA.—The Roanoke St. Ry., Electric Light & Power Co. was sold on Aug. 1, at public auction, together with 526 acres of mineral land to Major R. M. Venable, Baltimore, representing the bondholders. The railway was sold at $150,000, and the power plant at $31,000. The land brought $4 an acre.

HUNTINGTON, W. VA.—The Ohio Valley Electric Ry. Co. was incorporated Aug. 2, with $1,000,000 capital stock, to construct a line from Huntington to Cotlettsburg and Ashland, Ky. Thos. J. Bryan, H. S. Cato and Lindsay Vinson, all of Huntington, are incorporators.

BIRMINGHAM, ALA.—The Highland Ave. & Belt Line R. R. was sold at public auction, July 31, to E. E. Whittaker, New York, at $176,000.

HUNTSVILLE, ALA.—The Pennsylvania Construction Co., Daniel Caufield, Mgr., is reported to have been awarded the contract for building the Huntsville St. Ry. Work is to be completed by Sept. 1. T. C. Dupont, Pres.

LYNCHBURG, TENN.—John Y. Garlington, representing a Chicago syndicate, has offered to construct an electric railway from this place to Tullahoma, if the people of Moore county will raise a bonus of $20,000. W. W. Holt, Chn. of Subscription Com.

INDIANAPOLIS, IND.—Wm. F. Brown and Julia W. Brown, Philadelphia, have conveyed the property of the Indianapolis & Broad Ripple Rapid Transit Co. to the Broad Ripple Traction Co., for $499,000.

MARION, IND.—The commissioners of Grant county have granted a franchise to W. T. Cammack, Amasa Wade and E. A. Huffman, all of Marion, to construct a line from this city to Gas City, to compete with the lines of the Union Traction Co.

DETROIT, MICH.—John W. Hubbard and others have petitioned the board of aldermen for a franchise for the Union Ry. Co., which they propose organizing for the construction of a new system of street railways.

HANCOCK, MICH.—The Houghton County St. Ry. Co. has been incorporated, with $25,000 capital stock, to construct a street railway. F. J. Banden, Houghton; C. A. Stone, Newton, Mass., and W. C. Chapman, Canton, Mass., are incorporators.

DUBUQUE, IA.—It is reported that the Dubuque St. Ry. is to be reconstructed and repaired at a cost of $50,000. The power machinery will be removed from the Couler Ave. station to the Star electric plant, and heavier rails will be placed and the track reballasted.

MANKATO, MINN.—The Mankota St. Ry., Light & Power Co. was incorporated, with $500,000 capital stock, Aug. 3, to operate both a freight and passenger electric railway, about 35 miles in length. Work is to commence at once.

VALLEJO, CAL.—Richard Wylie, Napa, Cal., is interested in the construction of the proposed Clear Lake electric power plant and railway between Vallejo and Clear Lake.

VALPARAISO, CHILI.—The Electrical Corporation, Ltd., is reported to have been organized in London, England, for the purpose of acquiring concessions granted to Josiah Harding, Civil Engr., care of Gibbs & Co., Valparaiso, for the construction of electric traction and lighting systems in this city. It is expected that a large steam plant will be used at first for generating the electricity, but that ultimately water power from the Aconcagua will be utilized. Within two months the corporation will probably be in the London market for the material.

ELECTRIC LIGHT AND POWER.

PORTSMOUTH, N. H.—Bids are asked until Sept. 2 for an electric light building 56 x 123 ft., and a boiler-room 50 x 55 ft., at the navy yard; also for the installation of two boilers, heater and pumps. M. T. Endicott, Ch. Bureau Yds. and Docks, Navy Dept., Washington.

LUDLOW, VT.—Geo. H. Levy, Fred. O. Knight and L. G. Fullam have been appointed a committee to investigate the question of building a city plant to cost about $30,000.

CAMBRIDGE, MASS.—It is stated that the contract for putting in a plant at the city hall will soon be let. Address Mayor Champlin and Alderman Ahern.

NIANTIC, CONN.—It is proposed to construct a tide-mill on Niantic Bay for power purposes. Edward P. Bretts, Engr., Hartford, Conn.

WATERTOWN, N. Y.—Geo. Dryden and Jno. Dryden, Watertown, propose to form a company to build a water power plant at High Falls on Deer River, near Copenhagen, N. Y.

WEST POINT, N. Y.—Bids are asked by the Quartermaster, U. S. A., until Sept. 8, for an electric plant, as stated in our advertising columns.

MOUNT HOLLY, N. J.—It is reported that the American Investment Co., which has purchased the gas works and water power, has arranged to build a stone dam here to take the place of the present wooden structure. The construction of a plant, which, it is said, will furnish the power for a series of trolley lines that will connect nearly a score of small towns in the vicinity of the county seat, will follow. The amount involved in the purchase of the property is $72,000. The N. J. Light, Heat & Power Co. will operate the plant.

WESTWOOD, N. J.—Plans for the proposed plant for Mr. Ottigon are being prepared.

HARRISBURG, PA.—P. B. Shaw, Williamsport, Pa., and E. Z. Wallower, have purchased the plant of the Harrisburg Electric Co. and have formed a new company with a capital stock of $2,000,000. It is said that new machinery will be put in.

PHILADELPHIA, PA.—Wm. J. Manning, Gen. Mgr. National Electric Co., 26th and Christian Sts., writes us that bids will be wanted about Aug. 15 for extending the present building to make it 200 x 400 ft. Brick, slag roof, cross-compound engine, boilers, condensers, piping, shafting, dynamos, belting and station appliance will be contracted for. The whole plant will have a capacity for 10,000 HP. Chas. Edgerton, Engr., Fidelity Bldg.

PHOENIXVILLE, PA.—Work, it is stated, will soon be begun on the proposed plant for the French Creek Water Co., recently incorporated by C. Jess Young and others.

READING, PA.—The board of public works has asked the council to build a plant at a cost of $150,000.

SOUTH WILLIAMSPORT, PA.—The council has voted to let a 3-year contract for electric lighting to the Lycoming Electric Co.

STRASBURG, PA.—Lively Bros., of Lancaster, Pa., have been awarded the contract for putting in a plant to light this place and Quarryville.

MIDDLETOWN, DEL.—Bids are asked by J. W. Jolls, Secy., for an engine and dynamos, etc., for the electric plant and water-works, as stated in our advertising columns.

HAGERSTOWN, MD.—R. B. Havlepp has been granted a franchise for subways for electric wires; estimated cost, $20,000.

HAVRE DE GRACE, MD.—John H. Reckford, Belair, Md., writes us that bids for a plant will be wanted by Aug. 15. The plant will be operated by steam and will have a capacity for 45 arc and 1,000 incandescent lights.

LYNCHBURG, VA.—The New England Engineering Co., Waterbury, Conn., has been awarded the contract for a plant in this city.

ROANOKE, VA.—The plant of the Roanoke Electric Light & Power Co. has been sold to the reorganization committee, represented by Maj. R. M. Venable, for $31,000. It is stated that the property will be improved.

WINCHESTER, VA.—The Winchester Gas & Electric Light Co. will be awarded a 5-year contract for lighting the city, provided that a new plant shall be erected at once, and that the compny will have in operation an incandescent plant within four months, and further that the price of the arc lights shall be $55 per annum.

ANNISTON, ALA.—Bids are asked by the city court until Sept. 22 for the purchase of the property of the Anniston Gas & Light Co. The company will be reorganized and an incandescent plant put in.

TUSCUMBIA, ALA.—The question of granting a franchise for a plant is reported as being considered.

BELLAIRE, O.—Bids are asked by the city clerk until Aug. 22 for an electric plant, according to reports.

CRAWFORDSVILLE, IND.—The plant belonging to the city was destroyed by fire Aug. 3; reported loss, $28,000.

EVANSVILLE, IND.—Bids are asked until Aug. 26 for lighting the streets, parks, public buildings, etc., for five years from Aug. 11, 1900. At the end of the five years the plant is to become the property of the city. Geo. W. Swearingen, Clk. Bd. Pub. Wks.

MONROE, MICH.—Bids are asked by the board of public works until Aug. 12 for constructing a plant, according to reports. Estimated cost, $20,000.

FLINT, MICH.—Plans for a plant, 50 x 125 ft., for the People's Electric Light & Power Co. are being prepared; estimated cost, $25,000.

NORTHVILLE, MICH.—J. M. Burgess, Pres., writes us that bids are wanted until Aug. 10 for constructing a plant to have a capacity for four 1,200-c. p. arc and 1,000 20-c. p. incandescent lights; estimated cost, $10,000. Field & Hinchman, Engrs., Majestic Bldg., Detroit, Mich.

CHARLESTON, ILL.—We are informed that the following bids for a plant were received by the council Aug. 1: Gates & Randolph, Monadnock Bldg., Chicago, $9,000; Jos. A. Murray, Glen Summit, Pa., $7,500; Charleston Electric Co., Charleston, $7,500.

CLINTON, ILL.—This place, it is reported, will build a plant to cost $15,000.

WAUPUN, WIS.—R. D. Tillotson, Cy. Clk., writes us that bids for a plant will be wanted in about three weeks. F. H. Ford, Madison, Wis., is preparing plans for a city plant to cost $11,000.

COUNCIL BLUFFS, IA.—It is reported that G. L. McKibben, Van Wert, O., and Israel Lovett, are preparing plans for a municipal plant. The Municipal Construction Co., Chicago, has submitted a plan to put in a plant to cost about $50,000.

MINNEAPOLIS, MINN.—The General Electric Co., it is stated, will probably extend its light plant here, a mortgage for $2,000,000 having been filed. A. M. Robertson, Gen. Mgr.

HASTINGS, NEB.—This place voted Aug. 1 to issue $20,000 in bonds for a municipal plant.

COFFEYVILLE, KAN.—This place has been restrained from letting the contract for a plant to cost $17,000. The injunction will hold until the district court convenes in the fall.

EAST GRAND FORKS, N. DAK.—The council has been unable to sell its $35,000 of bonds for a plant and water-works, and will, it is stated, grant a 25-year franchise.

SHELBYVILLE, MO.—An election, it is stated, will soon be held to vote on the question of issuing $6,000 in bonds for a plant.

COCHITI, N. MEX.—The Cochiti Gold Mining Co. will hold a meeting Aug. 10 at 83 Montgomery St., Jersey City, N. J., to vote on the question of increasing the capital stock, part of the proceeds to be used for an electric plant.

BURNS, ORE.—Press reports state that the Burns Electric Light & Water Co. will soon begin the construction of its proposed improvements. The franchise was granted in January, 1897, and work was to be begun inside of four years.

MOTHERWELL, ENGLAND.—Bids are asked until Aug. 18 for furnishing and erecting a complete plant. Prof. A. B. W. Kennedy, Engr., 17 Victoria St., Westminster.

CARLISLE, ENGLAND.—Bids are asked until Aug. 17 for boilers, engines and dynamos for the plant. Prof. A. B. W. Kennedy, Engr., London; A. H. Collingwood, Clk.

PERTH, SCOTLAND.—Bids are asked until Aug. 28 for furnishing the materials and for erecting a complete plant. Plans may be had on payment of five guineas, which sum will be returned on receipt of a bona fide bid. W. C. C. C. Hawtayne, Engr., 9 Queen Victoria St. Place, London, E. C., Eng., and 93 Hope St., Glasgow; Wm. MacLeish, Clk.

REVAL, RUSSIA.—Press reports state that the Volta is the name of a new company which has been formed at Reval, with a capital of 1,500,000 roubles, to carry on an electrical engineering business in Russia. It is the intention of the concern to make extensive purchases of improved electrical appliances for power and electric lighting purposes.

VALPARAISO, CHILI.—The Electrical Corporation, Ltd., London, Eng., has been formed to secure concessions for a light plant and a street railway recently granted to Josiah Harding, Civil Engr., care Gibbs & Co., Valparaiso. It is reported that bids for materials will be wanted in two months. The power plant will be on the Aconcagua River.

BRIDGES.

CAMBRIDGE, MASS.—Bids are asked until Aug. 15 for the construction of a bridge of 300 ft. with a steel railway draw span. Wilson Dall, Pres. County Comrs.

PUTNAM, CONN.—F. W. Seward, Selectman, informs us that the contract for the construction of a bridge of iron and stone, the structure to have one span of 16 ft. and 49 ft. in width, estimated cost $1,600, has been let to the Berlin Iron Bridge Co.

BINGHAMTON, N. Y.—The construction of a viaduct which is to cost about $225,000 and be 50 ft. wide, with a 16½-ft. headway, is being considered by the street railway commission.

ROCHESTER, N. Y.—Justice Davy has authorized the receiver for the Rochester & Irondequoit R. R. Co. to issue certificates not to exceed $32,000, and to use the proceeds for the construction of two bridges.

NEW BRUNSWICK, N. J.—The following bids were received Aug. 2 for the construction of an iron draw-bridge over Cheesequake's Creek, at Morgan's Station: Berlin Iron Bridge Co., East Berlin, Conn., $11,620; N. J. Steel & Iron Co., Trenton, $10,750; Youngstown Bridge Co., Youngstown, O., $13,721; Wrought Iron Bridge Co., Canton, O., $9,997 (accepted); F. R. Long & Co., New York, $10,175; Dean & Westbrook Bridge Co., New York, $11,320; Groton Bridge & Mfg. Co., Groton, N. Y., $12,000; W. T. Kirk, Plainfield, $10,400; Toledo Bridge Co., Toledo, O., $11,000.

CHESTER, PA.—The county commissioners will probably recommend that a new iron bridge be built to replace the old one over the Ridley Creek.

HARRISBURG, PA.—Local papers state that the Pennsylvania Steel Co. has received a contract for a bridge from the Chicago Transfer Ry. Co. at $30,000. The company has also received a contract for a bridge from the N. Y. C. & H. R. R. R. Co. for 1,000 tons of steel for the grade crossing at Buffalo.

PHILADELPHIA, PA.—Charles M. Mills, Asst. Engr., informs us that the councils have not yet made any allotment of the sum set apart in the new loan for the bridges over the P. & R. R. R. and the Pennsylvania R. R.

PITTSBURG, PA.—It is stated that the Pittsburg Bridge Co. has been awarded the contract for the construction of a new bridge across the Kiskiminetas River at Vandergrift connecting Armstrong and Westmoreland counties.

WILKES-BARRE, PA.—It is stated that the county will condemn, purchase and make free for passage the three following bridges: Berwick-Nescopeck bridge, at $25,500; Nanticoke bridge, at $50,000; Pittston Ferry bridge, at $54,000.

PITTSBURG, PA.—The contract for the new Consolidated Traction Co.'s bridge between Sharpeburg and Lawrenceville has been awarded to the Keystone Bridge Co.

WASHINGTON, D. C.—Gen. John M. Wilson, Chief of Engineers of the Army, has submitted an estimate to the district commissioners for the expenses of the Washington Aqueduct and its appurtenances, for the fiscal year 1901, which amounts to $190,034.

LOUISVILLE, KY.—It is stated that the board of commissioners will consider the question of a bridge at Borden, the other at Walker's mill, over Fourteen-Mile Creek.

CINCINNATI, O.—Bids are asked until Aug. 19 for the construction of a bridge across South Fork, at Taylor Creek, Miami township. Eugene L. Lewis, County Audr. ——It is stated that the commissioners are considering the issuance of bonds for the construction of a bridge over Ross Run in Paddock Road.——It is stated that the plans for the bridges to be constructed at Norwood and Harrison have been approved by the county commissioners.

CINCINNATI, O.—Bids are asked until Sept. 2 for the construction of the superstructure of a bridge over B. & O. S. W. R. R., at Norwood, Hamilton county. Eugene L. Lewis, County Audr.

MANSFIELD, O.—The county commissioners are considering the rebuilding of several bridges in the county which have been washed away.

MARIETTA, O.—Bids are asked until Aug. 28 for the construction of a bridge across the Muskinquio River, to have four spans; width, 32 ft.; capacity, 100 lbs. per sq. ft. Haslett & Hanlen, Des. Engrs., Wheeling, W. Va.

TOLEDO, O.—The bids for the construction of the bridge across the Maumee River at Grand Rapids were received July 28, and all were rejected, being over $2,000 more than the estimate. The Toledo Bridge Co. was the lowest bidder, at $76,890.

TOLEDO, O.—The county commissioners on Aug. 2 awarded the contract for the construction of the Grand Rapids bridge to the Toledo Bridge Co., at $16,890. The bridge will be 600 ft. long.

INDIANAPOLIS, IND.—Bids are asked until Aug. 22 for the purchase of $150,000 in bonds for the construction of six bridges. O. H. Spencer, Clk. Bd. Pub. Wks.——Bids are asked until Aug. 30 for the construction of a bridge over Fall Creek on Central Ave. Harry B. Smith, Audr.——The following bids were received for the construction of the bridge over Fall Creek at Central Ave., but were rejected: Pennsylvania Bridge Co., plate girder, Nelson design, $22,500; plate girder, Coyner design, $27,345; high truss, $30,000. Wrought Iron Bridge Co., Nelson, $38,871; plate girder, Coyner, $29,137; high truss, $31,996. Canton Bridge Co., plate girder, Nelson, $21,000. Indianapolis Bridge & Iron Works, plate girder, Nelson, masonry, $8,500; iron work and approaches, $21,000; plate girder, Coyner, masonry, $8 a cu. yd.; iron work and approaches, $22,000. New Columbus Bridge Co., plate girder, Nelson, iron work, $22,900; bridge complete, $31,999; plate girder, Coyner, iron work, $29,400; masonry, $8.75 a cu. yd. Wm. Petrie, stone bridge, $53,900. Koss & Fritz, plate girder, Nelson, masonry, $10 a cu. yd. Massillon Bridge Co., iron bridge (no design named), $14,833. Brackett Bridge Co., plate girder, Nelson, $27,600. Toledo Bridge Co., plate girder, Nelson, $19,996. King Bridge Co., plate girder, Nelson, $24,500; plate girder, Coyner, $33,500; high truss, $35,500. Lafayette Bridge Co., plate girder, Nelson, $20,700; plate girder, Coyner, $31,000; high truss, $28,700. Gansberg, Roney & Hayworth, stone bridge, $9 a cu. yd. Koss & Fritz, stone bridge, $13 a cu. yd. William Fife, oolitic stone bridge, $12 a cu. yd.; stratified stone $7 a cu. yd.; plate girder, Nelson, stone work, $8.75 a cu yd.; concrete, $5 a cu. yd.; high truss, stone work, $8.75 a cu. yd.; concrete, $5 a cu. yd. Hoosier Construction Co., Melan arch, $32,000 and $31,000; oolitic limestone, $32,600; pavement, $3,000. M. M. Defrees, stone bridge, $54,812; concrete arch, Defrees, $53,200. Capital Paving & Construction Co., stone bridge, $10.45 a cu. yd.; Melan arch, $45,250.

SHELBYVILLE, IND.—Bids are asked by the county clerk until Aug. 28 for the construction of four bridges.

DETROIT, MICH.—It is reported that the elevated road company will bring the project for the construction of a bridge before the council again.

BEMENT, ILL.—Bids are asked by the town clerk, Atwood, Ill., until Aug. 21, for the construction of a bridge to be 70 ft. in length at this place.

URBANA, ILL.—Bids are asked by the county clerk until Aug. 15 for the construction of three small highway bridges.

DES MOINES, IA.—Bids are asked by the council until Aug. 31 for the construction of a bridge across the Des Moines River on Sixth Ave., as stated in our advertising columns. E. W. Woodruff, Cy. Clk.

FAIRFIELD, IA.—The contract for the bridge at Coppock was let July 20 to the Geo. E. King Bridge Co., Des Moines, Ia., at $7,447.

NEW ULM, MINN.—Bids are asked until Sept 4 for an iron span on the north side of Burn's bridge. Louis E. Vogel, County Audr.

LA MOURE, N. DAK.—Bids are asked until Aug. 22 for the construction of a 65-ft span combination bridge across James River, with steel floor beams and tubular steel casing 22 ft. long. C. J. Allister, County Audr.

BUTTE, MONT.—We are informed that the Great Northern Ry. Line has let the contract to Lassig & Co., of Chicago, for furnishing the steel to be used in the construction of its two bridges in Montana; estimated cost, $75,000.

HELENA, MONT.—We are informed that the contract for the construction of a bridge across the Missouri River at Canyon Merry has been let to the Missouri Valley Bridge & Iron Works, Leavenworth, Kan., at $19,000.

ST. LOUIS, MO.—The board of officers of engineers will hold a meeting Aug. 15 to consider and report upon plans for a proposed bridge to be built across the Mississippi River between St. Louis, Mo., and St. Clair county, Ill. Maj. W. L. Marshall, U. S. Engr., Chicago.

DENVER, COLO.—It is stated that the contract for the construction of a bridge across the Arkansas River at Swink has been awarded to the Pueblo Bridge Co. The structure will be 350 ft. long, of wood and steel, and will cost about $5,750.

LOOMIS, WASH.—Bids are asked until Aug. 12 for the construction of a bridge across the Methon River. O. A. Hoag, Secy. State Road Comrs., Conconully, Wash.

DOWNIEVILLE, CAL.—Bids are asked until Aug. 22 for the construction of a bridge on site of the Ann Turner bridge across the Slate Creek, one mile west of Port Wine, Sierra county. Henry E. Quigley, Clk. Bd. Supervisors.

EUREKA, CAL.—Bids are asked until Aug. 14 for the construction of a bridge across Mad River at Hannah's Crossing. W. H. Haw, Clk.——Bids are asked until Aug. 15 for the construction of a bridge across Little Dobbyn's Creek on the road from Blocksburg to Alder Point bridge.

CALDWELL, IDAHO.—Bids are asked until Sept. 1 for the construction of a bridge across the Seven-Mile Slough, three miles south of Emmet. Edgar Meek, Clk.

APPLETON, ONT.—E. T. Wilkie, Engr. Township of Ramsay, Carleton Place, Ont., writes us that the following bids have been received: Substructure, Jas. F. Munro, Arnprior, Ont., $1,596; W. J. McDowell & Son, Pakenham, Ont., $1,575; George Bradford, Almonte, Ont., $1,450 (accepted). Superstructure, King Bridge Co., Cleveland, O., $4,068, pin connected truss; Imperial Bridge & Iron Co., Montreal, Que., $3,115, pin connected truss; Weddell Bridge & Engine Works, Trenton, Ont., $2,980, rivetted truss; Hamilton Bridge Works Co., Hamilton, Ont., $2,560, rivetted truss (accepted). Substructure will consist of two piers, 8 ft. high, rock bottom to bridge seats, two abutments, 5½ ft. and 7 ft. high. Superstructure, three spans, 77 ft. center to center of piers; 16-ft. roadway.

TORRETA, ITALY.—It is stated that the substituting of a steel bridge of one span of 1,196 ft. for the present old Torreta bridge over the River Ticino, in the Province of Ticino, is proposed. Address the municipal authorities at Torreta for information.

BUILDINGS.

HALLOWELL, ME.—Bids are asked until Aug. 14 for heating the new building of the Maine Industrial School for Girls. Address C. H. Dudley.

LIVERMORE FALLS, ME.—Bids are asked until Aug. 10 for erecting a brick building for I. G. Sharaf, of this place. Coombs, Gibbs & Wilkinson, Archs., Lewiston, Me.

ANDOVER, MASS.—It is announced that the necessary funds for erecting a new gymnasium at Phillips Andover academy, $50,000, has been raised, and that erection will be begun this fall.

BOSTON, MASS.—Plans have been completed, according to reports, for a new building, 48 × 57 ft., to be erected for Charles P. Curtis at Essex St. and Oliver Place; estimated cost, $125,000.

NAHANT, MASS.—Bids are asked by the U. S. life saving service, Washington, D. C., until Aug. 16, for the construction of a life-saving station at Nahant.

NORTH ADAMS, MASS.—It is reported that the Richmond Estate will erect a new brick and stone hotel building, 128 × 67 ft., at Main and State Sts. Allen & Vance, Archs., Pittsfield and Boston, Mass.

SHREWSBURY, MASS.—Fuller & Delano, 452 Main St., Worcester, Mass., are said to be preparing plans for a new residence to be erected on the estate of P. W. Moen, Mgr. of American Steel & Wire Co., at this place. Reported total expenditure, $1,000,000.

NEWPORT, R. I.—J. J. Churchyard, 648 Clinton St., Buffalo, N. Y., is reported to have been the lowest bidder for the construction of barracks at the U. S. naval training station on Coasters Harbor, Newport, at $117,000.

HARTFORD, CONN.—Geo. H. Gilbert, 67 Williard St., has prepared plans for an addition to the South school building.——Bayley & Goodrich, 700 Main St., are reported to have purchased the site at Church and Ann Sts. for a new apartment building, to cost about $75,000.

BUFFALO, N. Y.—Bids are asked by the supervising architect, Washington, D. C., until Aug. 29, for the interior finish, plumbing and approaches of the U. S. building at Buffalo.——The following bids were received by the supervising architect, Washington, D. C., Aug. 3, for the ventilating and heating apparatus, cold and hot water supply systems, etc., for the post-office building in this city, as advertised in Engineering News: C. B. Kruse Heating Co., Milwaukee, Wis., $84,500; Blake & Williams, New York, $88,820; Frank Dobson, New York, $93,000; Edward Joy, Syracuse, N. Y., $98,500; J. W. Danforth Co., Buffalo, $110,700; Timothy McEvoy, Buffalo, $98,142; E. Iribacker, Buffalo, $105,239; Gaylord & Eltspenc, Binghamton, N. Y., $92,672; Chafer & Becker, Cleveland, O., $97,419; Howe & Bassett, Rochester, N. Y.; $106,000; Borger Bros. & Co., Columbus, O., $101,315; E. P. Bates, Syracuse, $116,425.

NEW ROCHELLE, N. Y.—The lowest bid for the enlargement of the city hall building was $58,300. The available funds, according to Mayor Dillon, amount to but $27,000.

NEW YORK, N. Y.—Plans have been filed by Schmuck & Montag, 2577 3d Ave., for three 5-story brick flat and store buildings at 157th St. and Railroad Ave., to cost $60,000. Edward Wenz, Arch.; by J. & G. J. Fleischman, 2 West 115th St., for four 5-sty brick flat and store buildings on 108th St. and Madison Ave., to cost $70,000. G. F. Pelham, Arch., 503 5th Ave.; by Henry Kaufmann, for a 5-story brick flat building on 100th St., near Park Ave., to cost $40,000. G. F. Pelham, Arch.; by Bryan & Campbell, 141 West 103d St., for a 7-story stone flat building on 99th St., near Riverside Drive, to cost $65,000. M. V. B. Ferdon, Arch.; by M. S. A. Wilson, 21 East 23d St., for three 6-story brick flat and store buildings at 435 to 441 East 13th St., to cost $65,000. Schneider & Herter, Archs., Bible House.

OSWEGO, N. Y.—The contract for constructing improvements to the Oswego State Normal and Training School building is reported to have been awarded to M. L. Ryder, Albany, N. Y., at $21,113.

SCHENECTADY, N. Y.—Bids are asked by the fire department until Aug. 14 for erecting the central fire station, the new No. 5 hose house, and the addition and alterations to No. 3 hose house. E. C. Clemishire, Arch.

UTICA, N. Y.—The Skenandon Yarn Mill Co. is said to contemplate the erection of a 5-story brick fireproof building, 75 × 175 ft., for the storage of cotton.

WEST POINT, N. Y.—Bids are asked by the quartermaster until Sept. 4 for the reconstruction and remodeling of the library building for the U. S. Military Academy at West Point, as stated in our advertising columns.

JERSEY CITY, N. J.—Bids are asked until Aug. 31 for erecting school building No. 20. Geo. F. Witt, Chn. Com.

WEST NEW YORK, N. J.—Bids are asked until Aug. 16 for a brick outhouse and a steam heating plant. W. J. Maguire, Clk. Bd. Education, P. O., Guttenberg, N. J.

BRADDOCK, PA.—John Gunn & Co., Pittsburg, Pa., were the lowest bidders, July 28, for the erection of the town hall, at $27,819. The appropriation was $22,000.

BUTLER, PA.—George Schenck, Butler, has been awarded the contract for erecting the county home, excepting the electric wiring, plumbing and steam heating, at $56,500. There were eight bidders.

DANVILLE, PA.—It is reported that H. C. Huffman & Co., Williamsport, Pa., have been awarded the contract for erecting several buildings for the Danville Insane Asylum, to cost about $60,000.

MEADVILLE, PA.—The commissioners of Crawford county have decided to erect a new brick, stone and iron jail building, to cost about $25,000.

PHILADELPHIA, PA.—Building permits have been granted to William Steele & Sons for erecting a 7-story business and manufacturing building for the Robert Young Estate, at 12th and Cherry Sts., to cost $60,000; and for a 3-story factory building at Allegheny Ave. and Boudinot St., for the Oldham Mills Co., to cost $65,000.——J. E. & A. L. Pennock have been granted a permit for erecting two buildings for the National Export Exposition, at 34th and South Sts., to cost about $90,000.

PITTSBURG, PA.—The department of public works is preparing plans for a restaurant building for Highland Park, to cost about $35,000.

ACCOMAC, VA.—The supervisors of Accomac county have decided to erect a new court house in this town, to cost $20,000, acocrding to reports.

ATLANTA, GA.—The state railroad commission has ordered the Southern Ry., the Atlanta & West Point Ry., the Central of Georgia Ry. and the Seaboard Air Line to file plans for a new passenger station for this city within sixty days.

LEXINGTON, KY.—Bids are asked until Aug. 10 for constructing the proposed building for Mrs. Sallie McClelland. Richards, McCarthy & Bulford, Archs.

NEWPORT, KY.—Bids are asked by the supervising architect, Washington, D. C., until Aug 31, for constructing (except heating apparatus, electric wiring and conduits) the post-office building at Newport.

CLEVELAND, O.—Bids are asked until Aug. 16 for erecting a fire station at Woodland Hills Ave. and Crane St. H. H. Hyman, Dir. of Fire Service.

STEELRUN, O.—Bids are asked by the board of education of Lawrence township, Washington county, until Aug. 21, for building a school house. G. R. Reed, Clk.

FORT WAYNE, IND.—Charles Wermuth, Fort Wayne, was the lowest bidder July 31 for erecting a custodial building for the School for Feeble Minded Children, at $16,998. The contract for the steam heating and gas fitting has been let to the Bryce Heating & Ventilating Co., Toledo, O., at $2,150.

INDIANAPOLIS, IND.—Ten ice houses of the Indianapolis Ice Co. and ten Big Four refrigerating cars were destroyed by fire July 28; reported loss, $45,000.

JEFFERSONVILLE, IND.—P. H. McCormick & Co., Columbus, O., is reported to have been the lowest bidder for the construction of the new cell house for the state reformatory, at $249,388, including a $40,000 electric light plant. Other bids were: M. T. Lewman & Co., Louisville, $306,000, for the entire work; J. E. Redman & Co., Logansport, $265,901.30, omitting heating and ventilating apparatus; J. C. Pierson & Son, Indianapolis, $214,000, omitting heating and ventilating apparatus. For the iron work alone: Stewart Iron Works, Cincinnati, $62,900; Champion Iron Works, Canton, O., $74,670; Brown-Ketcham Iron Works, Indianapolis, $65,969; Granger & Co., Louisville, $78,500; Van Dorn Iron Works, Cleveland, O., $65,716; Hallnock Iron Works, Indianapolis, $57,808; Snead & Co., Louisville, $66,993; Hedgewald & Co., New Albany, $72,700. For the plumbing alone: Healey & O'Brien, Indianapolis, $19,820; Johnson & Miller, Louisville, $33,550; A. M. Ramsey, Louisville, $24,970; Clark & Sons, Indianapolis, $24,627; E. A. Strong, Indianapolis, $24,412.

CHARLEVOIX, MICH.—Bids are asked by the U. S. life-saving service, Washington, D. C., until Aug. 16, for constructing a life-saving station at this place. Estimated cost, about $8,000.

DETROIT, MICH.—The supervisors of Wayne county have recommended that the contract for the heating and lighting plant for the new county building be awarded to Jas. W. Partlan, at $87,500.

GRAND RAPIDS, MICH.—Rosema & Stacy, Grand Rapids, have been awarded the contract for erecting the hospital annex for the Soldiers' Home, at $11,743.

CHICAGO, ILL.—The Commonwealth Electric Co. is reported to be about to erect a new building, 113 × 121 ft., adjoining its present building on 56th St., to cost about $200,000. Shepley, Rutan & Coolidge, Archs., Old Colony Bldg.——Plans have been prepared for a new 3-story brick and stone apartment building to be erected at 59th St. and Calumet Ave. for B. F. George; estimated cost, $60,000. L. Mart Mitchell, Arch., Roanoke Bldg.——The Calumet Elevator Co. has been granted a building permit to erect a one-story brick elevator at foot of 102d St., to cost $125,000.

WINNETKA, ILL.—It has been decided to erect a new 60,000 high school building in this village for New Trier township.

MADISON, WIS.—Bids are asked until Aug. 23 for erecting the state historical library. Isaac S. Bradley, Secy.

VINTON, IA.—Benton county has voted against the proposition of erecting a new $75,000 county court house.

RED LAKE FALLS, MINN.—An election will be held at this place Aug. 22 to vote upon the question of issuing $4,000 of bonds to be used for erecting an addition to the South Side School. A. P. Toupin, Clk.

McINTOSH, MINN.—Bids are asked until Aug. 21 for erecting a village hall. T. S. Berg, Pres. Council; E. Strassburger, Arch., Crookston, Minn.

ST. PAUL, MINN.—Bids are asked by the supervising architect, Washington, D. C., until Aug. 30, extension from Aug. 15, for the foundations, superstructure and roof covering of the extension to the U. S. building at St. Paul.

GLEN ULLIN, N. DAK.—Bids are asked until Aug. 26 for erecting a school house in Union school district No. 20. Henry Carter, Clk.

COLUMBIA, MO.—Reports state that the board of education has let a contract to the Columbia Planing Mill Co. and B. F. Stewart & Sons for the construction of a new $15,000 high school building, and work will be begun at once. Work is now in progress here on new buildings for the Christian Female College, and the State School of the Christian Church of Missouri, buildings which will cost $60,000. Ground will soon be broken for a $30,000 hospital building on the campus of the Missouri State University. A new $18,000 county infirmary has just been completed.

AUSTIN, TEX.—Bids are asked until Aug. 15 for installing a steam heating system in the east wing of the University of Texas. Jas. B. Clark, Proctor; J. L. O'Conner, Arch., Austin.

CRIPPLE CREEK, COLO.—It is reported that the Florence & Cripple Creek R. R. Co. will soon erect a passenger and freight station at Second and Myers Aves., to cost $65,000. R. D. Stewart, Ch. Engr., Florence, Colo.

DULCE, N. MEX.—Bids are asked by the office of Indian affairs, Washington, D. C., until Aug. 29 for constructing a brick dormitory and a sewer system at the school at Navajo agency (Dulce P. O.), and an adobe dormitory and water and sewer system at Little Water school.

FRESNO, CAL.—Plans have been accepted for the new church building for the First Baptist Church. L. B. Valk, Arch.

SALINAS, CAL.—E. Mathewson, Salinas, is reported to have been awarded the contract for erecting a high school building here, at $24,880.

SAN DIEGO, CAL.—Andrew Carnegie has offered to give $50,000 for a public library in this city if a site be given and the library maintained as at present.

TORONTO, ONT.—A company has been organized in this city to erect a 6-story brick, stone and iron Turkish and Russian bath building, to cost about $125,000.

ROSSLAND, B. C.—Bids are asked by the commissioners of land and works, Victoria, B. C., until Aug. 21, for erecting a court house at Rossland.

MEXICO, MEX.—Reports state that the Mexican government has contracted with Samuel Hermanos, New York, for the construction of four new light houses on the eastern shore of the Yucatan peninsula.

WATER-WORKS.

ELLSWORTH, ME.—The Ellsworth Electric Illuminating Co. and the Ellsworth Water Co. have consolidated under the name of the Ellsworth Light & Water Co., as a result of several years' negotiations. Station and works are located on the Union River and furnish water and light for this city and Ellsworth Falls. The new company proposes an extension to the dam and other improvements.

ISLE OF SPRINGS, ME.—The directors of this island propose constructing works in the near future. Address Dr. B. T. Sanborn, Augusta, Me.

BOSTON, MASS.—Bids are asked until Aug. 17 for earth and rock excavation and concrete masonry for the improvement of Spot Pond, as stated in our advertising columns. F. P. Stearns, Ch. Engr. Metropolitan Water Bd.; Wm. N. Davenport, Secy.

GLOUCESTER, MASS.—The commissioners have fixed the price the city shall pay the Gloucester Water Supply Co. for the works at $600,000, interest from Oct. 1, 1898, to be added, making the total $738,000.

HARDWICK, MASS.—Bids are asked until Aug. 17 for 1,761 ft. of 6-in. cast-iron water pipe and four hydrants in Gilbertville. Address Chas. F. Angell, Gilbertville.

PITTSFIELD, MASS.—E. A. Ellsworth, Civil Engr., Holyoke, Mass., writes us that it is proposed to increase the water supply of this city, but so far nothing definite has been done. Mr. Ellsworth's report on the proposed extension has been submitted to the board of public works. The supply is by gravity. It is not probable that anything will be done this season.

BALLSTON SPA, N. Y.—Bids are asked until 7.30 p. m. Aug. 11 for furnishing and laying about 13,500 ft. of cast-iron water pipe, setting valves, plugs, etc., for the works, and also for building the foundations for the standpipe, the pumps, boilers, and erecting the pumping station, etc., and furnishing a triplex engine 8 × 10 ft. The following bids were received Aug. 3 for furnishing and erecting a steel stand-pipe, 35x65 ft.: Tippett & Wood, Phillipsburg, N. J., $7,400 without cover and $8,500 with cover; Walsh Bridge & Iron Co., Springfield, Mass., $6,510 and $7,100; Albany Boiler & Iron Co., Green Island, $6,500 and $6,990; Standard Boiler & Bridge Co., Bellaire, O., $6,170 and $6,800. The board has let the contract to the Standard Boiler & Bridge Co., at $6,170 for the standpipe without a cover, the work to be completed by Nov. 1. H. M. Geer, Engr.; W. H. Sherman, Clk.

CANAJOHARIE, N. Y.—H. A. Swortfiguer, Pres., writes us that the town will vote in September on the question of issuing $100,000 in bonds for works and a sewerage system and not $10,000, as noted last week.

ROME, N. Y.—The following bids were received Aug. 2 for laying about two miles of cast-iron water pipe: Jas. Swift & Co., Syracuse, $4,173; C. Connor and John Hyde, Rome (accepted), $3,159. George Waghorn, Rome; Thomas Bove, Rome; Frank George, Rome, $5,212; Miller & White, Oneida, $3,498.

YONKERS, N. Y.—A. W. Kingsbury, Clk., writes us that the following bids were received Aug. 3 for a boiler at the tube well station: Burhorn & Granger, 136 Liberty St., N. Y., $1,200; P. Delaney & Co., Newburgh, N. Y., $1,175; Donegan & Swift, 6 Murray St., N. Y., $1,149; Oswego Boiler Works, Oswego, N. Y., $1,250.

BAYONNE, N. J.—Jas. J. Coogan has been awarded the contract at $4,388 for laying water mains in W. 26th St. and Ave. I.

CLINTON, N. J.—The Clinton Water & Water Supply Co. has been incorporated, with a capital stock of $20,000, by Wm. B. Meetch, Harrisburg, Pa.; H. G. Frederick, Millersburg, Pa.; and others.

SUMMIT, N. J.—The committee has submitted a preliminary report regarding the purchase of the works. A. A. Buckley, Chn. Com.

BARNESBORO, PA.—The Barnesboro Water Co. has been incorporated with a capital stock of $1,000 by Jas. A. McClain, Treas., Spangler, Pa.; E. A. Rigler, Clearfield, Pa., and others.

DOYLESTOWN, PA.—The council proposes to purchase a pump to cost about $3,000 for conveying water from wells to the reservoir.

SOUTH BETHLEHEM, PA.—The Ross Common Water Co. has been incorporated, with a capital stock of $1,000, by J. Riegel, Germantown, Pa.; C. Brodhead, Bethlehem, and others.

MIDDLETOWN, DEL.—Bids are asked by J. W. Jolls, Secy. Comrs., for two pumps and dynamos, etc., as stated in our advertising columns.

BALTIMORE, MD.—Bids are asked until Sept. 1 for works for the Tuxedo & Embla Parks Water-Works Co., as stated in our advertising columns. D. C. Adelsberger, Engr., 722 Pennsylvania Ave., Baltimore. Address J. C. McKennie, Herald Bldg., Baltimore.

WASHINGTON, D. C.—Gen. John M. Wilson, Ch. Engrs., U. S. A., has recommended that surveys be made for the purpose of determining the cost of duplicating the conduit now supplying the city of Great Falls. The capacity of the conduit is about 70,000,000 gallons daily, while the consumption is 50,000,000 gallons, or 178 gallons per capita. It is estimated that the consumption will equal the capacity of the present conduit within ten years.

ROCKY MOUNT, N. C.—Bids are asked until Sept. 1 for furnishing the materials and for constructing works, as stated in our advertising columns. J. H. Baker, Jr., Mayor; T. T. Thorne, Town Clk.; J. L. Ludlow, Engr.

ROME, GA.—The contract for a 1,500,000-gallon filter has been let to the New York Filter Mfg. Co., 26 Cortlandt St., New York, and the contract for the works has been let to Walton & Wagner, Rome. The plant will cost $20,000. C. E. McLin, Chn. Com.

PRATT CITY, ALA.—Bids are asked until Aug. 23 for the purchase of $25,000 of 6% bonds for the proposed works. R. F. Lovelady, Treas.

TUSCUMBIA, ALA.—W. H. Sawtelle, of this place, has been granted a 30-year franchise for works, he representing a Birmingham company. Population, 7,500.

BARDWELL, KY.—C. V. Heaslet, Clk., writes us that this city has voted to issue $6,000 of 6% 20-year bonds for works. R. J. Bugg is placing the bonds on the market.

GREENWOOD, MISS.—H. T. Crosby, Secy. Young Men's Business League, and W. S. Vardeman, Mayor, are reported as wanting estimates for works and a sewerage system.

SARDIS, MISS.—This place voted July 28 to build works to cost $12,000.

CLEVELAND, O.—Bids are asked until Aug. 15 for a 7-ft. sluice gate. John Van Develde, Deputy Dir. Pub. Wks.

SOUTH BROOKLYN, O.—L. A. Phelps writes us that the city has made arrangements whereby it will have lake water from Cleveland for fire protection only. Bids for the works and for the purchase of $25,000 of bonds are being asked. E. G. Cantrell, Engr.

BANGOR, MICH.—R. M. Chase, Village Pres., writes us that this place defeated the proposition to put in works on July 31.

BATTLE CREEK, MICH.—W. W. Brigden, Supt. and Engr., writes us that it is not likely that the proposed filter will be put in this season. The city may put in a sample filter at the city hall.

LUDINGTON, MICH.—An election will be held Sept. 13 to vote on the question of issuing $110,000 in bonds to purchase the works.

HARTFORD, WIS.—The following contracts for works were let July 29: Twenty-five horse-power gasoline engine, J. Thompson & Sons Mfg. Co., Beloit, Wis., $990; laying pipe and setting hydrants, Weber & Blake,; pipe, U. S. Cast-Iron Pipe & Foundry Co., Chicago, about $8,000. The works complete will cost about $14,000.

LA CROSSE, WIS.—Alfred James, Chn. Com., writes us that the contract for mains in different parts of the city has been let to R. F. Weston, at $14,525.

RACINE, WIS.—Local papers state that a company is being organized to put in new works and will ask for a three-year franchise. Estimated cost, $300,000.

SUN PRAIRIE, WIS.—Bids are asked until Aug. 16 for furnishing the materials and for constructing the proposed works, as described in our advertising columns. J. C. Fitch, Cy. Clk., writes us that this place voted July 31 by 117 for to 95 against the construction of works. Population, 1,000. The plans and specifications for this work are on file at the office of the Engineering News Publishing Co., Monadnock Block, Chicago, Ill. W. G. Kirchoffer, Engr., Baraboo, Wis.

TWO RIVERS, WIS.—J. C. Inglehart, Chicago, Ill., is reported to have applied for a franchise for works and an electric plant.

CROOKSTON, MINN.—The Crookston Water-Works, Power & Light Co., it is reported, proposes to extend its works at a cost of $18,000. W. J. Murphy, Pres.

MINNEAPOLIS, MINN.—City Engineer Sublette has been directed to prepare plans and estimates for a new pumping station to supply water from above Rice Creek for the northeast portion of the city. Address Alderman Lane, of the committee.

NORTH BEND, NEB.—The contract for engines and pumps for the works has been let to J. H. Thompson & Co., Beloit, Wis., at $1,620, Fairbanks, Morse & Co. refusing to sign the contract.

BELLE FOURCHE, S. DAK.—A. A. Moodie has been granted a 30-year franchise for works.

HOWARD, S. DAK.—Bids are asked until Aug. 18 for constructing works. W. R. Smythe, Engr., Madison, S. Dak.; C. A. Laurson, Recdr.

EAST GRAND FORKS, N. DAK.—This place, it is reported, has been unable to sell its $35,000 of bonds for works and an electric plant, and will probably grant a 25-year franchise to W. J. Murphy, of Minneapolis and Crookston, Minn.

LIBERTY, MO.—W. M. Latson, Kansas City, has asked for a franchise. J. W. Hall, Mayor.

AUGUSTA, ARK.—Bids are asked until Aug. 16 for furnishing the materials and for constructing works to cost $8,000. Owen Ford, Engr., Security Bldg., St. Louis, Mo.; P. R. Andrews, Chn. Com.

BURNS, ORE.—Press reports state that work on the proposed plant will soon be begun by the Burns Electric Light & Water Co., to whom a franchise was granted in January, 1897.

LOS ANGELES, CAL.—It is stated that the Los Angeles Water Co. has decided to spend $60,000 in extending its mains.

LONDON, ONT.—Robt. Grant, Toronto, Ont., has been awarded the contract for rebuilding the dam at the works at $44,000.

LINCOLN, ENGLAND.—Wells from 1,500 to 2,000 ft. deep will be drilled for an increased water supply. It is stated that about three years will be required to complete the work. Percy Griffith, Engr., Westminster, London.

NOTTINGHAM, ENGLAND.—Bids are asked until Aug. 15 for furnishing about 17,000 tons of 24 and 30-in. cast-iron water pipe. S. G. Johnston, Town Clk.

BOGOTA, U. S. OF COLUMBIA.—The question of furnishing a water supply for Bogota has again been revived, and an engineer will soon leave London for the purpose of looking over the ground and preparing plans for the carrying into effect of this improvement, according to reports.

IRRIGATION.

ST. PAUL, MINN.—It is stated that the D. S. B. Johnston Land Co. will construct a canal to irrigate the land owned by that firm in Minnesota and eastern North Dakota.

NEW COMPANIES.—North Fork Ditch Co., Sacramento; $200,000; C. W. Clarke, H. G. Smith, A. N. Buchanan.

West End Irrigation Co., Elsinore, Cal.; $4,000; H. Little, N. L. Dickson, J. Balfour, Elsinore.

Gonzalez Water Co., Gonzalez, Cal.; $21,000; A. Wideman, Monterey county; A. Gonzalez, M. E. Gonzalez, San Francisco.

SEWERAGE.

NASHUA, N. H.—The council will probably build a new sewer in Main St. in the spring.

METHUEN, MASS.—D. W. Tenney writes us that the town meeting to consider the subject of sewerage has been adjourned until Aug. 26.

CANAJOHARIE, N. Y.—H. A. Swortfiguer, Pres., writes us that in our last issue it was stated that this place would soon vote on the question of issuing $10,000 in bonds for a system and water-works. The amount to be voted upon is $100,000, not $10,000.

HUDSON, N. Y.—Bids are asked until Aug. 14 for building a 10-in. pipe sewer in Rope Alley. W. S. Hallenbeck, Cy. Clk.

KINGSTON, N. Y.—John T. Cummings, Cy. Clk., writes us that the following bids were received Aug. 1 for constructing 13,000 ft. of 6-ft. brick trunk sewer, as advertised in Engineering News: Menehan & Everett, Orange, N. J., $208,820; Francis Curran, Rhinebeck, N. Y., $178,330; Jacob Rice & Co., Kingston, $169,500; Pennell & O'Hearn, Yonkers, N. Y., $205,000; H. E. Weiber, H. W. Otis and Jno. J. Campbell, Kingston, $173,126; The Harrison Construction Co., 745 Broad St., Newark, N. J., $185,918; Baker & Judson, Gloversville, N. Y., $229,000; Farrell & Hopper, 215 West 125th St., New York, $189,845; A. C. Gildersleeve, 39 Cortlandt St., New York, $159,700; Thos. F. Moore, Syracuse, N. Y., $163,000; Jas. J. Sweeney, Rondout Station, Kingston, $167,500. The council voted to let the contract to A. C. Gildersleeve, but on Aug. 7 the Mayor vetoed the contract, giving as a reason that the cost of the work would carry the city beyond the constitutional limit. The next meeting of the council is on Aug. 18.

SOUTH NYACK, N. Y.—Bids are asked until Aug. 22 for constructing a trunk sewer in Piermont Ave. and a main outfall sewer near the foot of Cedar Hill Ave., as stated in our advertising columns. G. M. Houston, Engr.; J. T. Kelly, Village Clk.

WATERFORD, N. Y.—The village trustees propose to construct sewers in Ward No. 8.

TRENTON, N. J.—Bids are asked until Aug. 15 for constructing a sewer in Brunswick Ave. C. E. Murray, Clk.

ASPINWALL, PA.—W. N. Sauer, Allegheny, Pa., has been awarded the contract for constructing sewers in certain streets, at $9,000.

BELLEVUE, PA.—It is proposed to construct a sewer in Spruce Run, at a cost of about $14,000. Edeburn & Cooper, Village Engrs.

HOMESTEAD, PA.—Cubeck Bros. have been awarded the contract for certain sewers and paving, to cost about $63,000.

SOMERSET, PA.—Ott Bros., Pittsburg, Pa., have been awarded the contract for building the system at $19,023.

TARENTUM, PA.—Contracts for about $22,000 worth of sewers and paving have been let to Ott Bros., Allegheny; Jos. Hastings, Pittsburg; Bowman Bros., McKeesport, and Rimmer & Wood, Butler, Pa. It is stated that about $100,000 will be spent this summer on improvements.

WASHINGTON, D. C.—The following bids were received Aug. 1 by the district commissioners for constructing sewers: East Side Interceptor, between pumping station and 12th St., southeast, 4,134 ft. circular brick, 6¼ ft. diameter, including 12 ft. of transition section, John Jacoby, $65,485; T. Wallace Reilly, $77,820; John M. Murphy, $78,835; B. J. Coyle, $94,496. East Side Interceptor, between 12th St., southeast, and 21st and A St., northeast, 1,380 ft. circular brick, 6¼ ft. diameter; also 6,935 ft. circular brick, 6 ft. diameter: John Jacoby, $104,130; T. Wallace Reilly, $145,350; B. J. Coyle, $142,373; T. B. Jones & Co., $136,423. Extension of Boundary Sewer, 2,920 ft. brick sewer, 22 ft. span, including 48 ft. transition section and 48 ft. of special section: John Jacoby, $217,660; T. Wallace Reilly, $298,675; John M. Murphy, $206,712; B. J. Coyle, $244,936; T. B. Jones & Co., $218,167; The Cranford Paving Co., $235,960; Lyon Bros., $252,270; Andrew Gleeson, $258,485; John Miller, $204,175; The Ferguson Contracting Co., $232,180. Quincy St., between 7th and Brightwood Ave., 1,010 ft. circular brick, 3½ ft. diameter: Lyon Bros., $6,426; Andrew Gleeson, $5,884; E. G. Gummel, $7,445; Martin McNamara & Co., $6,268. Trinidad St., 320 ft. of 3.25 × 4.875 brick sewer: Lyon Bros., $1,769; Andrew Gleeson, $1,750; E. G. Gummel, $2,138; Martin McNamara & Co., $1,877. Interceptor in Zoological Park, 150 ft. 15-in. pipe; 590 ft. 12-in. pipe; 130 ft. 10-in. pipe. Ontario Ave., between Rock Creek and Lanier Ave., 75 ft. 2.25 × 3.37 ft. brick; 250 ft. 18-in. pipe; 210 ft. 15-in. pipe. Kansas Ave., between Ontario Ave. and Adams Mill Road, 385 ft. 24-in. pipe; 425 ft. 21-in. pipe. Adams Mill Road, between Kansas and Lanier Aves., 350 ft. 18-in. pipe. Lanier Ave., between Adams Mill Road and Ontario Ave., 420 ft. 15-in. pipe: Lyon Bros., $8,016; Andrew Gleeson, $7,566; E. G. Gummel, $8,255; Martin McNamara & Co., $8,859. For extending the boundary sewer $190,000 was available, but as the lowest bid was $204,175, new bids will probably be asked.

HARRISONBURG, VA.—The council has voted to issue $20,000 in bonds for a system.

BIRMINGHAM, ALA.—Harry Jones, Chn. Com., writes us that the committees of the county and city boards have not decided fully as to ways and means of getting rid of the village creek pollution. The city is building a number of sewers, also paving—all by contract. Julian Kendrick, Cy. Engr.

MONROE, LA.—The legislature, it is reported, will be asked to grant this place authority to build systems of sewerage and of drainage. Shurman & Brown, Engrs., Nashville, Tenn. Address Mayor Forsythe.

EAST LIVERPOOL, O.—Henry Chambers is urging the construction of sewers along Lake Run, in the east end.

ALEXANDRIA, IND.—The state board of health has approved plans for the system.

FORT WAYNE, IND.—F. M. Randall, Cy. Engr., has been directed to complete plans for proposed intercepting sewer, to cost about $100,000; part of the cost will be paid for by the Nickel Plate Ry. It will be 3¼ miles long. The matter will be brought up late in the season.

JACKSON, MISS.—Bids are asked until Sept. 5 for constructing 24 miles of sewers, as stated in our advertising columns; estimated cost, about $100,000. W. G. Kirkpatrick, Engr.; D. P. Porter, Jr., Clk.

CHICAGO, ILL.—The following bids were received by L. E. McGann, Comr. Pub. Wks., Aug. 7, for constructing two tunnel sewers for the South Side, (A) for section G, 12,905 ft. long, and (B) for section H, 10,796 ft. long: Jas. H. Roche, (A) $832,065, (B) $437,250; Mueller & Cox, (A) $629,592, (B) $437,612; Griffith & McDermott, (A) $649,632, (B) $404,510; Dennis & Cleary, (A) $595,642, (B) $355,482; Jos. Duffy, (A) $559,953, (B) $360,458; Thos. Burke, (A) $542,774, (B) $385,337; Byrne & Shortall, (A) $611,520, (B) $343,932; Gahan & Byrne, (A) $566,005; (B) $388,181; Patrick H. Nash, (A) $531,557, (B) $322,097; Shailer & Shinglau Co., (A) $610,626; Cogan & Pound, (A) $709,775; Nash & Dawdell, (A) $532,724, (B) $336,029; John H. Esson, (A) $829,027, (B) $540,628. The first section of the intercepting sewer is to run east of the Illinois Central Ry., from 39th to 51st Sts., and in Cornell Ave., from 51st to 56th Sts. Section H will be built in 56th St., from Cornell to Stony Island Ave., thence from 56th to 70th St., and in 63d St., from Stony Island Ave. to west of the west line of the Illinois Central right of way.

NORMAL, ILL.—We are informed that the following bids were received July 26 for constructing sewers; E. A. Vencill, Clk.: Thomas Sylvester, Normal, $15,747 (accepted); Jno. Cherry, Jr., Bloomington, Ill., $17,165; Jno. F. Bretz & Son, Springfield, Ill., $16,474; Geo. McIntosh, Bloomington, Ill., $16,699.

BELOIT, WIS.—Harding & Nelson, Racine, Wis., have been awarded the contract at about $10,000 for constructing three miles of sewers.

ST. PAUL, MINN.—Bids are asked until Aug. 14 for a sewer in Minnehaha St. C. H. Bronson, Clk. Bd. Wks.

JEFFERSON BARRACKS, MO.—It is proposed to spend the $75,000 recently appropriated by Congress for the Jefferson Barracks on constructing a system and preparing for a park.

WEAVERVILLE, CAL.—An election will be held Sept. 5 to vote on the question of building sewers. R. K. Catter, Clk.

POMONA, CAL.—The question of building a system is being considered.

RENFREW, ONT.—I. K. Rochester, Clk., writes us that about a mile of 10 to 8-in. pipe sewers will be contracted for this month. It is also proposed to construct cement sidewalks at a cost of $1,800. G. A. McCubbin, Engr., St. Thomas, Ont.

VANCOUVER, B. C.—Press reports state that it is proposed to issue $150,000 in bonds for various improvements, including sewers in certain portions of the city and the construction of septic or settling tanks for the treatment of the sewerage. An election to vote on the question of issuing the bonds will be held Aug. 26. Thos. V. McGuigan, Cy. Clk.

PLYMOUTH, ENGLAND.—Bids are asked until Aug. 24 for constructing a deep sea outfall sewer, a storage tank and several long tunnel sewers. Jas. Mansergh, 5 Victoria St., Westminster, London; J. H. Ellis, Town Clk.

GARBAGE DISPOSAL—STREET CLEANING

LOWELL, MASS.—Mayor Crowley has declined to approve the contract made by the board of health with the Dixon Garbage Crematory Co., Toledo, O., for collecting and disposing of the garbage for five years at $26,500 a year.

NEW HAVEN, CONN.—Bids are asked until Aug. 14 for sprinkling the streets in Wards 1 to 12. Bids are wanted for 240 days, and it is estimated to cost $73,800, on streets where there are no car lines and using 50 carts. The city to own its carts (50); the work will cost $67,500 to $73,000. The carts will cost about $300 each. C. W. Kelly, Cy. Engr.

BINGHAMTON, N. Y.—The council has voted to award the contract for disposal of garbage to the Thackery Incinerating & Fertilizing Co.

MOUNT VERNON, N. Y.—The board of health is investigating the methods of burning garbage and refuse. A report on the subject will soon be made to the council. The board favors a crematory plant, and thinks that one could be built and placed in operation for $15,000.

NEW ROCHELLE, N. Y.—The committee has submitted a report for a crematory, and estimates it to cost about $1,500 a year for operation. Address Mayor Dillon.

NEW YORK, N. Y.—The board of health proposes to establish a crematory on Barren Island. Col. M. C. Murphy, Pres. Bd. Health.

WEST POINT, N. Y.—Lt. Malvern Hill Barnum, A. Q. M. G., received the following bids July 31 for a plant: Geo. A. Taber, 106 E. 23d St., New York, N. Y., $2,780; Davis Garbage Furnace Co., Lancaster, Pa., $3,087; The Dixon Garbage Crematory Co., Toledo, O., $1,390 (recommended for acceptance).

ALTOONA, PA.—Mayor Giles is reported as wanting to receive information for a garbage disposal plant.

MEMPHIS, TENN.—Local papers state that the city may decide to sprinkle its streets. Mayor Williams will make efforts to secure especial appropriation for this work.

LOUISVILLE, KY.—The committee has submitted its report in favor of a crematory and it is stated that bids will again be asked for furnishing a plant to cost about $60,000, and burning about 300 tons a day. The committee consists of Chas. F. Granger, Chn.; Dr. Allen, Dr. Taylor and Dr. R. B. Gilbert.

AKRON, O.—A proposition has been submitted to the council asking the council to build a plant. E. S. Underwood, Health Officer.

SAGINAW, MICH.—The council is securing information for a garbage crematory.

OTTUMWA, IA.—The question of putting in a crematory is being considered.

STREETS AND ROADS.

DEXTER, ME.—Local reports state that E. A. Flanders, of North Dexter, has been awarded the contract for the construction of a section of the new road that will lead from North Dexter to Cambridge.

BOSTON, MASS.—Bids are asked until Aug. 11 for constructing a macadam road in Chiswick Road, between Englewood Ave. and Chestnut Hill Ave.; also for constructing a macadam road in Ispwich St., between Boylston Road and Boylston St., and for the construction of a macadam road in Atherstone St., between Fuller and Bailey Sts. Benj. W. Wells, Supt. Sts.

NEW HAVEN, CONN.—Bids are asked until Aug. 11 for grading Mansfield St., between Munson and Division Sts. C. W. Kelly, Cy. Engr.

NORWALK, CONN.—Chas. N. Wood, Cy. Engr., writes us that the plans for the stone road have been completed and an appropriation made, and that bids will probably be asked this week.

WILLIMANTIC, CONN.—R. E. Mitchell, Engr., 5 Opera House Block, writes us that the plans for the state macadam road, 2,200 ft. in length, have been prepared and that bids will be asked soon.

CORTLAND, N. Y.—Bids are asked by the board of trustees until Aug. 14 for about 9,500 sq. yds. of asphalt paving in Port Watson St. F. Hatch, Village Clk.

MOUNT VERNON, N. Y.—The Union Ry. Co. has presented plans for the building of a boulevard as required in its original franchise through South Fulton Ave. At the meeting of the council Aug. 1 they were approved.

ROCHESTER, N. Y.—The following bids were received Aug. 8 at the office of the state engineer and surveyor, Albany, for the improvement of 6.53 miles of the Ridge Road between the northerly city line of Rochester and the westerly town line of Greece, Monroe county. The bids are for the improvement of this road under chapter 115 of the laws of 1898, known as the Good Roads law: Gillette, Hay & Gillette, Rochester, $45,500; Grattan & Jennings, Buffalo, $44,000; Warren-Burnham Co., 81 Fulton St., New York, $42,900; Callanan Road Improvement Co., Albany, $41,481; Geo. A. Rogers, Plattsburg, N. Y., $37,290; Chambers & Casey, Rochester, $36,000.

WHITE PLAINS, N. Y.—The contract for the construction of 8½ miles of macadam road was let July 31 to Duffy & McCabe, the lowest bidders, at $70,810.

ELIZABETH, N. J.—The council has received the following bids for paving: Court St., telford, J. F. Shandley, $5,972; J. W. Rehill, $7,307. Bond St., trap block, J. W. Rehill, $6,278; J. F. Shandley, $5,012. Fairmount Ave., trap block, J. F. Shandley, $2,560. Fourth St., trap block, J. F. Shandley, $4,420; Thomas J. Toole, $4,470; Pine St., telford, Patrick Faulknan, $4,160; J. W. Rehill, $4,742; J. F. Shandley, $3,814. Madison Ave., brick, J. F. Shandley, $2.04 sq yd.; F. R. Pratt, $5,119. Adams Ave., brick, F. R. Pratt, $15,579; Gerard Co., $15,705; M. Fitzgerald, $19,736. Anna St., brick, Girard Co., $5,268; J. F. Shandley, $2 sq. yd.; M. Fitzgerald, $6,622; F. R. Pratt, $5,260. Hampton Place, asphalt, J. F. Shandley, $4,244; Sicilian Co., $4,477; T. U. Baurman, $4,412. Catherine

St., telford, M. Fitzgerald, $7,772; P. Faughnan, $6,374; J. F. Shandley, $7,019; J. W. Rehill, $8,914. Grier Ave., telford, J. F. Shandley, $4,066; M. Fitzgerald, $4,511.

ELIZABETH, N. J.—Bids are asked until Sept. 1 for constructing about 4,977 sq. yds. of trap block pavement and resetting about 2,395 lin. ft. of curbing; also for about 230 lin. ft. of new curbing. N. K. Thompson, St. Comr.

GLOUCESTER, N. J.—It is stated that the council will vote on ordinances bonding the city for $75,000 to be used for paving.

PLAINFIELD, N. J.—Bids are asked until Sept. 5 for laying of about 10,000 lin. ft. of macadam pavement, 16 ft. to 40 ft. wide. J. T. MacMurray, Cy. Clk.; A. J. Gavett, St. Comr. and Engr.

ASPINWALL, PA.—The councils have awarded a contract to Sweeney & Houston, Allegheny, for paving of several streets, at $70,000.

HOMESTEAD, PA.—The Carnegie Steel Co., Limited, has awarded to the T. A. Gillespie Co. a contract amounting to about $300,000 for grading and paving the streets of East Hamestead from the Homestead line to Munhall. —The borough council has let a contract for grading and paving a number of streets to Cubeck Bros., at $63,000.

IRWIN, PA.—Bids are asked until Aug. 14 for paving with brick in Main St. H. L. Meerhopt, Burgess.

DANVILLE, VA.—Bids are asked until Aug. 30 for furnishing paving brick for paving a street containing about 20,000 sq. yds., as stated in our advertising columns. C. A. Ballou, Cy. Engr.

BIRMINGHAM, ALA.—The following bids have been received for paving South Twentieth and Second Ave: Dunn & Lallande, $35,938; Burkhalter & Co., $34,250; Leslie Bros., Chattanooga, $35,525. Local papers state that new bids will be asked for the 20th St. work, the bids being considered too high.

MOBILE, ALA.—Bids are asked until Aug. 28 for the construction of a road beginning at the intersection of Conception St. with One-Mile Creek and extending northward. Wm. H. Holcombe, Pres. Bd. Road Comrs.

BUCYRUS, O.—Bids are asked until Aug. 17 for macadamizing and curbing Galion St. W. A. Bucke, Cy. Clk.

CINCINNATI, O.—Bids are asked until Sept. 2 for the improvement of Van Blaricum Road, Greene township. Eugene L. Lewis, County Audr.

FREMONT, O.—The finance committee has recommended that the $12,062 bid offered for the $11,500 4% bonds by the Croghan Bank be accepted. The committee has also awarded the contract for the improvement of Court St. to Straub & Tischler, at $10,406.

PAULDING, O.—The contract for 1,400 yds. of paving has been let to Hall & Son, at $2,870.

SOUTH BROOKLYN, O.—Bids are asked until Aug. 14 for the improvement of Mill St. W. T. Puplkofer, Village Clk.

TOLEDO, O.—Bids are asked until Sept. 4 for paving in Colburn St. Wm. O. Holst, Cy. Clk.

EVANSVILLE, IND.—Bids are asked until Aug. 19 for brick sidewalks. Geo. W. Swearingen, Clk.

LOGANSPORT, IND.—Bids are asked until Aug. 16 for paving portions of several streets with brick. Austin D. Fausier, Cy. Clk.

BAY CITY, MICH.—Bids are asked until Aug. 18 for paving South Union St.; estimated cost, $7,979.

DETROIT, MICH.—The Highland Park Council has awarded the two following contracts for asphalting different sections of the city: Barber Co., for the section between the city limits and Highland Park hotel, at $49,785; American Co., for the section between the hotel and Six-Mile Road, at $27,887.

DETROIT, MICH.—The following bids have been received for paving in Fort St. with brick: Lennane Bros., $34,523; J. Porath, $35,107; A. Grant, $35,854; G. E. Currie, $42,171; B. D. Barton, $37,304; W. Lappin, $36,076; J. Wagner, $35,840; Liphardt & Winterhalter, $34,823; Talbot Paving Co., $40,451; J. A. Mercier, $35,237.

CHICAGO, ILL.—Bids are asked until Aug. 11 for the improvement of several streets by curbing, grading and paving. L. E. McGann, Pres. Bd. Local Improvements.

DES MOINES, IA.—Bids are asked until Aug. 21 for laying cement sidewalks on Sixth Ave. and on Park St. G. A. Eberhart, Bd. Pub. Wks.

ST. PAUL, MINN.—Bids are asked by the board of public works until Aug. 14 for paving Sixth St. with Kettle River sandstone. C. H. Bronson, Clk.

ST. LOUIS, MO.—Bids are asked until Aug. 18 for paving with brick Easton and Grand Aves. R. E. McMath, Pres.

ALAMOSA, COL.—It is stated that the Rio Grande county is preparing to build a wagon road to run from Del Norte to Embargo, to be about 14 miles in length.

SPOKANE, WASH.—The following bids were received July 29 for paving: Monroe St., City Street Improvement Co., $13,320; Alcatraz Asphalt Co., $13,500; Lincoln St., City Street Improvement Co., $11,290; Alcatraz Asphalt Co., $11,500; Stevens St., City Street Improvement Co., $22,762; Alcatraz Asphalt Co., $23,000.

WHATCOM, WASH.—The contract for paving Elk St. with fir blocks was let July 25 to the Portland Asphaltum Co., at $29,382, it being the lowest bid.

WINDSOR, ONT.—Wm. Newman, Cy. Engr., writes us that the taxpayers have voted in favor of paving about 250,000 sq. yds. with macadam or brick, and that the work will be commenced at once; estimated cost, $200,000.

MANUFACTURING PLANTS.

GLEN FALLS, N. Y.—The plant of the Glen Falls Portland Cement Co. was destroyed by fire Aug. 6, causing a reported loss of $250,000; insurance, $195,000.

ALLEGHENY, PA.—Plans have been prepared by the Riter-Conley Mfg. Co. for a series of steel and iron buildings to replace those recently destroyed by fire. There will be a main building 418 x 110 ft., to cost $55,000; a power house, 40 x 165 ft., to cost $6,000, and a 3-story storehouse, 31 x 138 ft., to cost $8,000.

McKEES ROCKS, PA.—Reports state that the Pennsylvania Malleable Co., chartered last June, has increased its capital stock from $10,000 to $600,000, and is asking for bids on the construction of a plant at this place, to cost $100,000. It is expected to begin operations Jan. 1.

PHOENIXVILE, PA.—The Heine Safety Boiler Co., Germantown, Philadelphia, Pa., is reported to have let the contracts for erecting a new plant at this place, to employ 200 hands.

PITTSBURG, PA.—The Stover Mfg. Co. has decided to erect a new plant covering five acres of ground for the manufacture of wind mills, grinding mills, etc.

THOMSON, GA.—D. A. Tompkins, Charlotte, Ga., is reported to have been awarded the contract for erecting and equipping a factory building for the John E. Smith Mfg. Co., including an electric light plant, etc.

ANNISTON, ALA.—The large lime works of the Anniston Lime & Stone Co., at Cobb City, were destroyed by fire on July 27.

MOSHERVILLE, MICH.—Robert Lake, Jackson, Mich., has been awarded the contract for erecting a new plant at this place for the Omega Portland Cement Co.; estimated cost, excluding machinery, about $25,000. Work is to commence at once. L. J. Byers and O. F. Jordan, of Jackson, are interested.

CHAMPAIGN, ILL.—The Twin City Ice & Cold Storage Co.'s building in this city was damaged by a boiler explosion Aug. 5; reported loss, $20,000.

CHICAGO, ILL.—Plans have been prepared for Nelson & Kreuter, manufacturers of laundry machinery, for a new 4-story factory building, 105 x 170 ft., to be erected at Bloomingdale Road and Spaulding Ave. Huehl & Schmidt, Archs.

STILES, WIS.—C. B. Pride, Appleton, Wis., has prepared plans for a new pulp mill to be erected here by the H. S. Eldred Co., Green Bay, Wis.

SIDNEY, N. S.—Reports state that the contract for the excavations and concrete foundations for H. M. Whitney's smelting works, at Sidney, was awarded to a Halifax firm, Aug. 5, at $150,000.

MISCELLANEOUS CONTRACTS.

WHARF.—Columbus, Ga.—Bids will soon be asked for the reconstruction of the wharf at this town, as stated in reports.

DOCK.—Salem, Ore.—Local papers state that the O. R. & N. Co. will soon begin the construction of a dock and warehouse in place of ones now in use.

REMOVING WRECK.—Boston, Mass.—Bids are asked until Aug. 22 for the removal of the wreck in Provincetown Harbor. Col. Chas. R. Suter, U. S. Engrs.

DREDGING.—Norfolk, Va.—Bids are asked until Aug. 29 for dredging in Nandua Creek, as stated in our advertising columns. Maj. Thos. L. Casey, U. S. Engrs.

LEVEE.—Memphis, Tenn.—Bids are asked until Aug. 12 for the construction of about 78,000 ft. of levee in Desha county, Arkansas. Capt. H. C. Newcomer, U. S. Engr.

CANAL.—Buffalo, N. Y.—At the meeting of the aldermanic committee on July 27 it was voted to fill the Hamburg Canal; also that the city engineer be authorized to ask for bids for the work.

GATEWAY.—Newark, N. J.—Bids are asked by the Essex County Park Commission, 800 Broad St., until Aug. 29, for gateway in Branch Brook Park, as stated in our advertising columns. A. Church, Secy.

DREDGING, ETC.—Union River, Me.—Bids are asked until Sept. 7 for dredging and excavating ledge in Union River, Me., as stated in our advertising columns. Maj. S. W. Roessler, U. S. Engr., Portland, Me.

RUBBLE STONE.—Boston, Mass.—Bids are asked until Sept. 5 for the delivery of rubble stone for a breakwater at Sandy Bay, Mass., as stated in our advertising columns. Col. Chas. R. Suter, U. S. Engrs.

STEAMBOAT.—Wilmington, N. C.—Bids are asked until Sept. 11 for furnishing steam inspection boat, new or second hand, about 75 ft. long, as stated in our advertising columns. Capt. E. W. Van C. Lucas, U. S. Engrs.

FIRE HOSE.—West New York, N. J.—Bids are asked until 8 p. m., Aug. 10, for furnishing 1,500 ft. of 2½-in. rubber fire hose, coupled, guaranteed to stand 400 lbs. pressure. Francis F. Town, Town Clk., P. O., Guttenberg.

TUG-BOAT.—Wilmington, N. C.—Bids are asked until Sept. 4 for furnishing a steel, iron or wood tug-boat, about 90 ft. long, with compound engines, as stated in our advertising columns. Capt. E. W. Van C. Lucas, U. S. A.

TELEPHONE.—Chicago, Ill.—It is stated that the Illinois Telephone & Telegraph Co. has received 3,000 contracts for new telephones. Ch. Engr. S. Potts has started a survey at South Water St. and the river for conduits.

Hurnichver, the Morgan Co., and the Niles Tool Works; for the other apparatus there were 908 bids, ranging from $149,800 to $189,000. Of these the General Electric and the Westinghouse companies submitted the lowest.

JETTY WORK.—Portland, Ore.—Local papers state that the three following contracts for jetty work on the Oregon coast have been let: Wakefield & Jacobson, Coos Bay, at $123,710; Hale & Smith, Sineslaw River, at $23,737; John Kiernan, Coquille River, at $23,568.

DREDGE.—Baltimore, Md.—The contract for the construction of two ocean-going dredges has been awarded to the Maryland Steel Co. The dredges are to be built for A. Onderdonk, 1 Broadway, New York, who is to dredge the East Channel Harbor, New York. The dredges will be 320 ft. long, 48 ft. beam and 26 ft. draught.

PLANS FOR DREDGERS.—Buenos Ayres, Argentine Republic.—The Buenos Ayres "Standard" states that the Argentine government will soon ask for plans and specifications for dredges to be used in Argentina rivers and on the coast, and that two prizes for the best plans will be awarded, one of $10,000 and the other of $2,000. Only those plans will be accepted which may be presented by firms having representatives permanently in the country.

CANAL IMPROVEMENTS.—Albany, N. Y.—The contracts for canal improvement work were let by the Superintendent of Public Works Partridge on Aug. 2, as follows: Removing obstructions from Racquette River dam, near Raymondville, St. Lawrence county, Wm. Coates, Raymondsville, $2,208; dredging the Cayuga and Seneca Canal, G. L. Grannis, Syracuse, $7,025; construction of a stone arch culvert in the Erie Canal at Little Falls, Hallinan Bros., Little Falls, $4,490.

DRY-DOCK.—Philadelphia, Pa.—The navy department, Washington, D. C., received Aug. 5 the following bids for the new timber dry-dock at the League Island Navy Yard; estimated cost, $825,000: Farrell & Hopper, New York, $1,182,000; McGaw & Roosevelt, Philadelphia, $1,220,000; McIlvain-Unkefer Co., Pittsburg, $1,143,569; Curtis & Driscoll, Springfield, Mass., $[illegible],000; George Pierce, Bangor, Me., $949,973; Atlantic, Gulf & Pacific Co., New York, $749,000, and $3.50 a sq. ft. for steel approaches; Degnon-McLean Construction Co., New York, $957,000. The general dimensions of the dock are: Length over all, 750 ft.; width on top, 144 ft.; width on floor, 80 ft.; entrance width, 101 ft; depth from top to floor, 40 ft.; draft, at mean high water, 30 ft.

CONTRACT PRICES.

STREET CLEANING.—Brooklyn, N. Y.—The following bids were received by the street-cleaning department, Manhattan, July 28, 1899, for machine sweeping of 308 miles of streets for the remainder of the year: James Dunne, 317 Clinton St., $13 a mile; M. J. Dady, 350 Fulton St., $21; Newman & Co., 123 Hope St., $11.40; Joseph A. McGarry, 186 Remsen St., $10.40; Borough Construction Co., 189 Montague St., $11; Clark Bros. & Co., 177 North 7th St., $12.30; E. J. McKeever, 371 Fulton St., $9.35; De Witt C. Bouker, 110 Wall St., $9.60.

WATER DEPARTMENT SUPPLIES.—Baltimore, Md.—Stewart R. Carr & Co. have been awarded the contract for pipe fittings, valve castings, etc., at 2.2 cts. a lb., and miscellaneous fittings at 2½ cts. The contract for 2,000 tons of special fittings has been let to R. D. Wood & Co., Philadelphia, at $45 a ton. The U. S. Cast-Iron Pipe & Foundry Co. has the contract at $24.87 a ton for 2,000 tons water pipe.

DREDGING.—New York, N. Y.—The following bids for dredging about 31,000 cu. yds. in Wallabout Canal were received by department of docks July 17, 1899: Jas. R. Steers, 1 Broadway, 20 cts a cu. yd. (accepted); Morris & Cumings Dredging Co., 17 State St., 22 cts.

IMPROVING POND.—Boston, Mass.—The following bids were received by the Metropolitan Water Board July 31 for the improvement of Spot Pond; Contract No. 179—Sec. 4, was awarded Moulton & O'Mahoney:

Bids Received at Boston, Mass., July 31, 1899, for Improving Spot Pond.

Bidder.	Contract 177—Sec. 3. Excavation Earth, 230,000 cu. yds.	Contract 177—Sec. 3. Excavation Rock, 10 c.yds.	Contract 177—Sec. 3. Riprapping slopes, 1,600 c.yds.	Contract 177—Sec. 3. Total.	Contract 179—Sec. 4. Excavation Earth, 260,000 c.yds.	Contract 179—Sec. 4. Excavation Rock, 10 c.yds.	Contract 179—Sec. 4. Riprapping slopes, 4,200 c.yds.	Contract 179—Sec. 4. Total.
M. Russo & Co., Boston, Mass.	$0.19	$1.75	$1.25	$45,718	$0.36	$1.75	$1.25	$98,868
Newell & Snowling Const'n Co., Uxbridge, Mass.	.188	1.50	1.98	46,308	.28¾	1.50	1.98	83,081
Moulton & O'Mahoney, Boston, Mass.	.21	3.00	2.00	51,530	.27	3.00	2.00	78,630
Long & Little, Leominster, Mass	.23	1.50	2.25	56,515	.36	1.50	2.25	103,065
Devine & McBride, Brighton, Mass.	.24	.80	.94	56,712	...	...	...	.....
Brodhead Contracting Co., Easton, Pa.	.24	4.00	2.00	58,440	.35	4.00	2.00	99,440
H. W. Wilson and Wm. B. Munro, Jr., Boston	.275	1.75	1.50	65,668	...	...	...	.....
Frank L. Allen, Worcester, Mass.	...	...	...	.....	.27	3.00	1.50	76,530

SIGNAL WIRE.—Winnipeg, Man.—Bids are asked until Aug. 12 for furnishing 20 miles of No. 9 Ex. B. B. double braided iron wire "B. W. G.," or No. 12 "B. & S." hard-drawn copper, double braided weather-proof wire. G. J. Brown, Cy. Clk.

QUAY AND DRAIN.—Alexandria, Egypt.—Bids are asked by the municipality of Alexandria until Nov. 28 for the construction of a quay and collector drain. Plans at the Commercial Department, Board of Trade, 7 Whitehall Gardens, S. W., London, Eng.

HARBOR.—Merida, Yucatan, Mex.—It is reported that the State of Yucatan is about to begin making extensive improvements. The construction of a harbor at Progreso, to cost about $4,000,000, is said to have been included in the proposed improvements; also the draining of the town of Merida, etc.

MACHINERY.—Brooklyn, N. Y.—The following are some of the bids received by the navy department, Washington, Aug. 8 for furnishing the machinery of the dry-dock, which was destroyed by fire last spring: Electric apparatus for a complete power plant, three lowest bidders—Bullock Electric Co., $190,000; General Electric Co., $180,000; Westinghouse Co., $165,000; six cranes—bids ranged from $35,000 to $60,000, the lowest being Spaulding &

REPAIRING BREAKWATER. — Ashland, Wis.—Maj. Clinton B. Sears, U. S. Engr., Duluth, Minn., received the following bids July 28, 1899, for repairs to the breakwater at Ashland; all bidders of Ashland, except Hugo & Tims, of Duluth; (A) is for furnishing and driving 48,000 lin. ft. of round piling, a lin. ft.; (B) for furnishing and bolting 17,400 lin. ft. round piling, a lin. ft.:

	(A)	(B)	Total.
H. Asselstine	17 cts.	20 cts.	$11,640
Hugo & Tims	16 "	19½"	11,073
Belknap Bros.	20 "	30 "	14,820
Peter P. Ferguson	14 "	24 "	10,896

DREDGING.—New York, N. Y.—The following bids for dredging about 200,000 yds. of mud in the East and Harlem Rivers were received by the department of docks and piers, July 31, 1899: Altantic Dredging Co., 31 Pine St., 20 cts.; Morris & Cumings Dredging Co., 22 cts.

BRICK PAVING.—Ottawa, O.—J. S. Cartwright, Cy. Engr., informs us that the following bids were received July 25 for 1½ miles of brick paving in three streets; contract let to Smith & Seitz for Bolen's Hallwood block and Berea curb; total, $33,188; foundation is made of 7 ins. stone and 2 ins. sand:

Bids Received at Ottawa, O., July 25, 1899, for Brick Paving.

Quantities.		Smith & Seitz, Ottawa, O.	Dager Bros., Canton, O.	Fisher, Kiefer & Bailey, Huntington, Ind.	G. W. Priestman, Anderson, Ind.	Herring & Son, Mansfield, O.	G. R. McArther & Co., Kenton O.	Standard B. & B. Co., Bellaire, O.	H. Gants, Columbus, O.	C. H. Bartow, Columbus, O.
Excavation	12,882 cu. yds.	$0.15	$0.18	$0.20	$0.19	$0.14	$0.19	$0.21	$0.22	$0.18
4 x 17-in. curb	15,240 lin. ft.	.25	.33	.30	.28½	.29	.27	.28½	.30	.28
5 x 12-in. headers	1,748 " "	.12	.10	.20	.23	.12	.10	.15	.12	.12
Foundation	25,587 sq. yds.	.27	.32	.30	.24	.25	.28	.34	.26	.23
Catchbasins	35 each	12.00	16.00	14.00	15.00	16.00	22.00	18.00	15.00	12.00
8-in. sewer	2,287 lin. ft.	.15	.15	.18	.15	.15	.20	.16	.14	.17
4-in. drain tile	10,650 " "	.02½	.03	.06	.04	.03	.04	.04	.06	.02½
Malvern blue granite	25,587 sq. yds.	.78½	.76	.75½	.83½	.77½	.80	.82	.80	.80½
Athens or Nelsonville	25,587 " "	.79	.78	.76	.84	.78	.81	.83	.80	...
Bolen's Hallwood	25,587 " "	.77	.76	.74	.82	.76½	.79	.81	.80	.70

DREDGING.—Hillsboro Bay, Fla.—Capt. Henry Jervey, U. S. Engr., Tampa, Fla., received the following bids July 31, 1899, for dredging in Hillsboro Bay, as advertised in Engineering News: (1) being for about 328,632 cu. yds. of dredging in sand, mud, etc.; (2) being for about 3,000 cu. yds. of dredging or removing rock; up to Aug. 4 no contract had been let: Isaac T. Brown, 99 Cedar St., New York, (1) 19⅝ cts. a yd.; (2) $4.90; Stewart Contracting Co., Columbia, S. C., (1) 22 9-10 cts.; (2) $5.98; and Alabama Dredging & Jetty Co., Mobile, Ala., (1) 22 cts.; (2) $5.30.

IMPROVING POND.—Boston, Mass.—The following bids were received by the Metropolitan Water Board July 17 for improving Spot Pond, as advertised in Engineering News:

Bids Received at Boston, Mass., July 17, 1899, for Improving Spot Pond.

Bidder.	Contract No. 174—Sec. 1. Excavation Earth, 130,000 cu. yds.	Rock, 200 cu. yds.	Rip-rap'g slopes, 2,200 cu. yds.	Total.	Contract No. 175—Sec. 2. Excavation Earth, 240,000 cu. yds.	Rock, 10 cu. yds.	Rip-rap'g slopes, 600 cu. yds.	Total.
*Newell & Snowling Construction Co., Uxbridge, Mass.	$0.26	$1.50	$0.98	$36,256	$0.24	$1.50	$0.98	$58,203
Long & Little, Leominster, Mass.	.26	2.00	2.50	39,700	.22	2.00	2.50	54,320
‡Moulton & O'Mahoney, Boston, Mass.	.28	1.50	1.50	40,000	.175	3.00	1.50	42,930
Rowe & Hall, Boston, Mass.	.29	1.50	2.00	42,400	...	...	...	.....
M. Russo & Co., Boston, Mass.	.335	1.75	1.50	47,200	.27	1.75	1.50	65,718
Devine & McBride, Brighton, Mass.	.35	1.00	1.00	47,900	.19	1.00	1.00	46,210
Baker & Judson, Gloversville, N. Y.	.33	2.50	2.50	48,900	.29	3.00	2.50	71,130
Jas. Driscoll & Son, Brookline, Mass.	.35	3.00	2.00	50,500	.35	5.00	2.00	85,250
Coleman Bros., Charlestown, Mass.	.36	1.75	2.00	51,550	.27	2.00	2.00	66,020
Broadhead Construction Co., Easton, Pa.	.37	2.00	2.00	52,900	.30	4.00	2.00	73,240
Busch Bros., Buffalo, N. Y.	.37	2.25	2.50	54,050	.31	3.00	2.00	75,030
F. Gammino, J. McCormack and N. Cappelli, Providence.	.42	2.50	2.00	59,500	.265	3.00	2.00	64,830
The C. H. Eglee Co., Boston, Mass.	.53	2.00	3.50	77,000	...	...	...	.....
Harris & Letteney, Boston, Mass.	...	...	...	.....	.30	2.75	2.50	73,528
H. W. Wilson and Wm B. Munroe, Boston, Mass.	...	...	...	.....	.335	2.00	1.00	81,020
Richard Falvey, Somerville, Mass.	...	...	...	.....	.42	5.00	3.50	102,950

*Awarded contract No. 174. ‡Awarded contract No. 175.

LEVEE WORK.—Memphis, Tenn.—The following contracts were let July 18, 1899, by Capt. H. C. Newcomer, U. S. Engr., for 1,814,000 cu. yds. of levee work in the Yazoo and Tensas districts: about 73,000 yds. above Wayside, Miss., L. C. Bull, Jr., Greenville, Miss., $14.99 cts.; 60,000 yds. below Leota, Arnold & Co., Memphis, 14.25 cts.; 56,000 yds. above Carolina, Arnold & Co., Memphis, 14.25 cts.; 63,000 yds. below Carolina, J. & A. Wynn, Wilcsinski, 12.75 cts.; 90,000 yds. above Skipwith, McCadden & Roach, Memphis, 18.50 cts.; 90,000 yds. above Skipwith, L. C. Dulaney, Duncansby, Miss., 15.40 cts.; 90,000 yds. at Skipwith, J. H. Cary, Memphis, 17 cts.; 62,000 yds. below Skipwith, C. A. Winter, Greenville, 14⅛ cts.; 61,000 yds. above Mayersville, A. C. Bull, Jr., 14 cts.; 62,000 yds. below Mayersville, Gilchrist & Crowe, Luna, Ark., 14.50 cts.; 97,000 yds. at Homochitta, L. C. Dulaney, Duncansby, Miss., 13.74 cts.; 32,000 yds. at Reserve Plantation, Stone & Stansell, Rosedale, Miss., 22 cts.; 27,000 yds. from Shipland to Lockland, Stone & Stansell, 24 cts.; 33,000 yds. from Lockland to Fitlers, J. H. Cary, Memphis, 29 cts.; 28,000 yds. from Shiloh to Tennessee, J. & A. Wynn, 25 cts.; 19,000 yds., from Tennessee Plantation to Devoto, L. C. Dulaney, 24 cts.; 56,000 yds., from Albemarle to Brunswick, J. H. Cary, 29 cts.; 35,000 yds. at Eagle Lake, Davis & Woods, Brunswick, Miss., 10.75 cts.; 36,000 yds. at Eagle Lake, A. C. Bull, Jr., 14.99 cts. All the work detailed in the above-mentioned contracts is in the lower Yazoo district and is below Greenville. The following contracts contemplate work in the upper Tensas district, which extends from the mouth of the Arkansas River to a point below Delta, La.: About 93,000 yds. at Red Fork, Arkansas River, J. B. Lewis, Memphis, 21 cts.; 80,000 yds. on Arkansas River below Lake Jenerson, C. O. Greenlee, Greenville, Miss., 13.78 cts.; 15,000 yds. at Sunnyside, J. B. Lewis, 24.50 cts.; 130,000 yds. above Lakeport, Lewis & Robertson, Grand Lake, Ark., 13.74 cts.; 120,000 yds. below Lakeport, W. M. Bates, Texarkana, 14 cts.; 46,000 yds. below Lake Providence, F. L. Maxwell, Mound, La., 16 cts.; 50,000 yds. near Goodrich, La., Robert Nicholson, Villa Vista, La., 27.50 cts.; 55,000 yds. below Duckport, H. F. Hodge, Natchez, Miss., 12.94 cts.; 140,000 yds., Bedford Landing, Maxwell & Nicholson, 31 cts.

ROAD AND EXCAVATING.—Boylston, Mass.—The Metropolitan Water Board, Boston, on July 24 received the following bids for excavating soil, Sec. 3, of metropolitan water-works, and for building a road in West Boylston and Boylston; bid of Busch Bros. accepted:

Bids Received at Boston, Mass., July 24, 1899, for Building a Road and for Excavating.

Quantities.		Busch Bros., Buffalo, N.Y.	Devine & McBride, Brighton, Mass.	Thos. H. Gill, Somerville, Mass.	Baker & Judson, Gloversville, N.Y.	Long & Little, Leominster, Mass.	Newell & Snowling Cons. Co., Uxbridge, Mass.	Broadhead Cont. Co., Easton, Pa.
Earth excavation	110,000 cu. yds.	$0.20	$0.22	$0.22	$0.27	$0.22½	$0.24	$0.31
Rock excavation	3,000 " "	1.00	1.00	1.50	1.00	1.15	1.50	1.25
Slope paving	4,750 " "	1.50	2.50	2.25	2.50	3.50	3.00	3.75
Masonry: Rubble, laid dry	35 " "	3.75	3.00	2.00	3.50	4.00	4.50	6.00
Rubble, laid in mortar	330 " "	4.00	5.00	7.00	4.50	5.50	6.50	7.50
Split-stone, laid in mortar	170 " "	10.00	12.00	15.00	12.00	13.00	12.00	12.00
Laying sewer pipe:								
12-in., for culverts	254 lin. ft.	.60	.10	.25	.50	.30	.20	.50
12-in., c.-i., for culverts	44 " "	.90	.25	.25	.50	.50	.20	1.00
Overhaul, = to 75,000 cu. yds., hauled 100 ft.		.00½	.01	.01¼	.01	.00¾	.01	.01¼
Total		$35,843	$43,656	$45,330	$49,122	$49,651	$50,302	$61,496

ELECTRIC LIGHTING.—Jeffersonville, Ind.—The following bids received July 29, 1899, for electric lighting for 10 years, from February, 1900: The Municipal Construction Co., Chicago, 109 lights, of 2,000-c. p., $56 a light. It will build a plant, costing $45,780. The city to pay the operating expenses, not to exceed six or eight thousand dollars. At the end of 10 years the property to go to the city. The Seckner Construction Co., Chicago, 109 lights, $47.14 each. It will construct a plant, and the city to pay $5,100.37 annually for operating expenses. At the end of 10 years the property to go to the city. Wayne Construction Co., Fort Wayne, Ind., 109 lights, $50.60 each. It will erect a plant costing $41,000, the city to pay the operating expenses for 10 years, when it would become the property of the city. Another bid was made by the same company to furnish 109 lights at $40 each, and to build a plant costing $32,700. The Jeffersonville Electric Light, Gas, Heating & Coke Co., Jeffersonville, 109 lights, $65 each. It will build a plant and pay all operating expenses, the property to remain in its possession.

JETTY WORK.—Washington, D. C.—Lt.-Col. Chas. J. Allen, U. S. Engr., received the following bid Aug. 2, 1899, from Chas. G. Smith, Jr., 3204 K St., N. W., Washington, for jetty work: Removing and relaying quarry stone, 720 cu. yds., $8.30; furnishing and relaying new quarry stone, 370 cu. yds., $8.30; oyster shells in place, 1,250 cu. yds., $3.00; excavation, 200 cu. yds., 60 cts.; total, $12,917.

DREDGING.—Newport, R. I.—Maj. D. W. Lockwood, U. S. Engr., Newport, received the following bids July 22, 1899, for dredging in the Inner Harbor: John P. Randerson, Albany, N. Y., 27½ cts. a cu. yd.; Cole Bros., Fall River, 25½ cts.; John H. Fenner, Jersey City, 11 cts.; Hartford Dredging Co., Hartford, 27½ cts.

BRICK PAVING.—Lima, O.—D. R. McArthur & Co., Kenton, O., have submitted the lowest bids for brick paving in three streets. East Elm St. and East Eureka St., excavation, 20 cts.; concrete, 45 cts.; straight curb, 41 cts.; circular, 90 cts.; header stones, 15 cts.; drain tile, 4 cts.; catchbasins, $12; sewer connections, 19 cts.; Townsend block, 80 cts.; Nelsonville or Athens, 78 cts.; Bolen's brown granite or Hallwood, 76 cts. Wayne St., excavation, 22 cts.; concrete, 45 cts.; crushed stone foundation, 22 cts.; straight curb, 37 cts.; circular, 90 cts.; header stones, 15 cts.; drain tile, 4 cts.; catchbasins, $14; sewer connections, 19 cts.; Townsend block, 80 cts.; Nelsonville or Athens, 78 cts.; Bolen's or Hallwood, 76 cts.; crushed stone foundation for tracks, 25 cts.; concrete, 55 cts.; removing tracks, 3 cts. a ft.; relaying tracks, 3 cts a ft.

REMOVING ROCK.—Delaware River, Pa.—Lt.-Col. C. W. Raymond, U. S. Engr., Philadelphia, Pa., received the following bids July 31, 1899, for removing about 6,499 cu. yds. of rock in the Delaware River opposite Petty Island, as advertised in Engineering News: American Dredging Co., Philadelphia, $1.45; International Wrecking, Salvage & Submarine Co., Atlantic City, N. J., $9.50; John L. Mills, Camden, N. J., $11.75; H. T. Dunbar & Co., Buffalo, N. Y., $16.47; Charles W. Johnston, Lewes, Del., $9.33; George A. Rogers, Plattsburg, N. Y., $13.23; P. Sanford Ross, Inc., Jersey City, N. J., $6.85.

BRICK PAVING.—Des Moines, Ia.—The following bids were received by the board of public works July 11, 1899, for brick paving in West 8th St., from Woodland Ave. to Croker St.: The Likes Improvement Co., $1.38 a sq. yd. for broken stone, $1.35 for broken tile, $1.28 for gravel for concrete base; The Iowa Brick Co., $1.30, $1.34, no bid for gravel; The Flint Brick Co., gravel base, $1.39¼ a sq. yd. (one course of brick on 6 ins. of concrete); Hugh Miller was the only bidder for cement curb on 25th St., from Cottage Grove Ave. to University Ave., at 42 cts. a lin. ft.

INDUSTRIAL NOTES.

WEAND & McDERMOTT, contractors, formerly Steward & McDermott, and Steward, McDermott & Weand, have removed their New York office from 215 W. 125th St. to Rooms 1301 and 1303 Empire Bldg., 71 Broadway.

THE BRADLEY PULVERIZER CO., Boston, Mass., has been successful in its litigation over the patents upon the Griffin mill. The Whitaker Cement Co., users of the Griffin mill, was sued for infringement by the owners of U. S. Patent No. 277,134 issued to Huntington for a crushing mill. In the first trial of the case in the U. S. Circuit Court the judge held that the Griffin mill did conflict with the Huntington patents. This decision has been now reversed by the Circuit Court of Appeals for the Third Circuit, in a decision by Judge Dallas, and Huntington's patent is given a narrow construction and is held not to cover the construction adopted in the Griffin mill.

THE BABCOCK & WILCOX CO., New York, has sold to the Manhattan Elevated Ry. Co., New York, the boilers required for its new electric generating plant, which will furnish electric current for operating its entire elevated railway system in New York city. The boiler equipment will consist of 64 530-HP. Babcock & Wilcox all wrought-steel boilers, capable of carrying a working pressure of 200 lbs. a sq. in. The boilers will be fitted with Roney Automatic Stokers, manufactured by Westinghouse, Church, Kerr & Co. This is claimed to be the largest single order ever placed for stationary boilers.

THE LINK-BELT ENGINEERING CO., Nicetown, Philadelphia, has recently been awarded contracts by the New York Central & Hudson River R. R. Co., for three complete locomotive coaling stations, to be erected at Utica, Weehawken and Kingston. These stations, to handle run-of-mine bituminous, will employ the Link-Belt carrier, and will embody the other improvements that have been suggested by the company's long experience with this line of work. The company also has in course of construction a locomotive coaling station for the Lehigh Valley R. R. Co., at South Plainfield, N. J. At this point lump anthracite, run-of-mine bituminous, and the small sizes of anthracites are to be handled.

NEW COMPANIES.—The Union Iron Works, Buffalo, N. Y.; $50,000; C. R. Baird, Philadelphia; Thomas B. Riter, Pittsburg; W. C. Cornwell, W. Caryl Ely, Buffalo.

International Car Wheel Co., Trenton, N. J.; $15,000,000; to manufacture car trucks and wheels; P. H. Griffin, T. Guilford Smith, Buffalo, N. Y.; Edgar McDougall, T. J. Dummond, Montreal; Albert D. Bosson, Boston, Mass.

Susquehanna Telephone & Telegraph Co.; $5,000; to furnish a telegraph service in Dauphin, Northumberland, Perry, Schuylkill, Juniata and Snyder counties, Pa.; J. E. Kahler, Killinger, Pa.; E. H. Leffler, J. H. Rowe, Millersburg, Pa.; F. W. Lenker, Killinger.

Virginia Railroad Motor Co.; $50,000; to manufacture railway appliances and to contract with railroads for all kinds of construction work; T. D. Hoskins, Pres., New York; R. O. Odom, Vice-Pres., Norfolk, Va.; C. W. Tebault, Secy., Norfolk, Va.

Delaware Valley Telephone Co., $2,500; to operate a telephone system connecting North Sanford, Afton, Bainbridge and other places.

Independent Telephone & Telegraph Construction Co., Syracuse, N. Y.; $5,000; Ernest L. White, Edward Barneman, Syracuse; J. J. Jernigen, Scranton, Pa.

Citizens' Telephone Co., Watertown, N. Y.; $50,000; to build through Watertown and Jefferson county; S. C. Sherman, S. F. Bagg, Watertown; Robert Bliss.

Fergus Iron Works Co., Fergus Falls, Minn.; $50,000; to carry on a general foundry and mill furnishing business; H. P. Bergman, D. L. Chelgren, H. E. Bergernd.

Morris Electric Co., 1 Exchange Place, Jersey City, N. J.; $125,000; to manufacture electrical apparatus and devices, etc.; Elmer P. Morris, Jersey City; Wm. G. Hubbard, Jr., Asbury Park, N. J.; H. F. Sanville, New York.

Randolph Automatic Switch Co., Newark, N. J.; $50,000; to manufacture railway switches; Harry F. Hays, Jr.

National Steam Boiler Co., 1 Montgomery St., Jersey City, N. J.; $100,000; to manufacture goods, wares, merchandise, etc.; Johan Johnson, Brooklyn, N. Y.; J. W. Avery, New York; Horace G. C. Thornton, Cranford, N. J.

Rotary Snow Plow Co., Kingston, N. Y.; $100,000; to manufacture snow plows; E. Peckham, T. Spore.

City Construction Co., New York; $10,000; contracting and building; J. P. Everett, G. L. F. Rohan, T. P. Byrne

Pacific Wave Motor Co., Los Angeles, Cal.; $1,000,000; to manufacture and operate motors by steam, electricity, compressed air or wave power; H. T. Hollingsworth, A. L. Perley, A. R. Hamilton, H. F. Wallace, all of Los Angeles; J. Ogden, Redlands, Cal.

Pine Iron Works Co., Pine Ironworks, Pa.; $75,000; to manufacture iron and steel; J. B. Bailey, C. L. Bailey.

People's Subway Co., Syracuse, N. Y.; $10,000; to construct underground electric subways and conduits; J. J. Jermyn, Scranton, Pa.; Edward Barnenan, Syracuse.

Continental Compressed Air Power Co., Camden, N. J.; $15,000,000; to manufacture air compressors, electrical machines, etc.; Frank R. Shattuck, Edward Everitt.

United Asphalt Co., 55 Montgomery St., Jersey City, N. J.; $5,000,000; to manufacture, mine and refine asphalt, etc.; Orray E. Thurber, Newark, N. J.; Newton C. Lyon

Continental Mfg. Co.; $1,500,000; to manufacture and sell chemicals, electrical and metallurgical products; Frank M. Zeller and Henry W. Paul, Philadelphia, Pa.; William W. Frazier, Jenkintown, Pa.; Isaac D. Wheaton.

Fayette Telephone Co., Lexington, Ky.; $6,000; J. T Shelby and John R. Allen.

Scullen-Gallagher Iron & Steel Co., St. Louis, Mo.; $500,000; to manufacture steel, castings, metal, etc.; J. Scullen, T. M. Gallagher, F. J. Wade, E. L. Roberts.

General Incandescent Lamp Co., Cleveland, O.; $50,000; to manufacture electrical machinery and electric lamps, J. Insull, F. H. Goff, T. H. Bushnell, S. H. Tolles.

New Jersey Engineering & Construction Co., Morristown, N. J.; $25,000; to construct and equip gas and electric plants; Frederick N. Taff, Millington, N. J.; Frederick W. Schmidt and Louis C. Bonnell, of Morristown.

California Dredging Co., San Francisco, Cal.; $35,000; to build and operate dredges; W. M. Klenk, San Francisco; J. W. Brown, Alameda, Cal.

Asphalt Paper Pipe Co., Los Angeles, Cal.; $40,000; to manufacture pipes for holding conducting electrical wires, etc.; W. G. Hunt, A. S. Dixon, B. H. Dyer, S. W. Garrettson, of Los Angeles.

Liquid Air Transportation & Appliance Co., Kittery, Me.; $500,000; to manufacture and deal in appliances for using liquid air for refrigerating purposes; R. S. Whitcomb, Malden, Mass.; C. C. Corbett, Boston; F. E. Rowell.

Acetylene Gas Apparatus Co., St. Paul, Minn.; $20,000; to manufacture acetylene gas generators, etc.

Whitehall Portland Cement Co., Philadelphia, Pa.; $500,000; to manufacture cements, etc.; J. S. Wentz, D. B. Wentz, Mary D. Wentz, E. Twining, of Mauch Chunk.

Pennsylvania Casting & Machine Co., Pittsburg, Pa.; $60,000; to manufacture iron and steel; W. L. Elkins.

Ohio Valley Electrical & Motor Power Co., Wheeling, W. Va.; $500,000; to sell and deal in electricity for motive power; M. Horkheimer, F. H. Lange, H. W. McLare.

Washington-Goodwin Meter Co., Cincinnati, O.; $200,000; to manufacture gas, water and liquid meters; S. Solar, W. D. H. Washington, F. C. Goodwin, N. P. Fenner, C. A. Culbertson, of Cincinnati.

Electric Mining Co., New York; $1,000,000; general mining business; C. A. Gregory, A. J. Smith, A. W. Bourne.

Philadelphia Rotary Tower Co., Philadelphia, Pa.; $50,000; to manufacture and deal in rotary towers; L. M. Mintess, J. T. Cross, Philadelphia; C. R. Miller, Wilmington, Del.; W. H. Babcock, Haddonfield, N. J.

Columbiana County Telephone Co.; $200,000; S. C. Thayer and M. S. Hawkins, Salem, O.; W. D. Keefrey, Leetonia, O.; Geo. E. Sebring, Sebring, O.; Will C. Morron, Lisbon, O.

Hawley Down Draft Furnace Co., Minneapolis, Minn.; $100,000; to manufacture furnaces, boilers, engines, heaters, etc.; C. E. Blyer, Chicago; M. B. Koon, Joseph Chapman, Jr., F. B. Semple and Horace Hill, of Minneapolis.

American Pneumatic Railway Ditcher & Grader Co., Granite City, Mo.; $250,000; to manufacture and operate railway grading and ditching machines; Edward F. Goltra.

Santa Rosalia Mining Co., Jersey City, N. J.; $800,000; to operate mines in the Cañon of Anton, state of Jalisco, Mexico; George T. Werts, John A. Fitzpatrick, Thomas Adams, John R. Joslyn, Allan G. Macdonell.

Glen Telephone Co.; $10,000; to operate lines of telephone in the towns of Glen, Mohawk, Charleston, Root and Florida, Montgomery county; A. Marshall Burt, Andrew A. Turnboul, Edward Edwards, of Glen, N. Y.

Merrimack Paving Co., Jersey City, N. J.; $50,000; Albert G. Thompson, Peter F. Conaton, John Ryan, Charles H. Hanson, Kenneth K. McLaren.

Chicago Crushed Stone & Paving Brick Co., Chicago, Ill.; $20,000; A. W. Underwood, J. A. McKeown, J. V. Norcross, Chicago.

Forsyth & Lame Deer Telephone Co., Helena, Mont.; $2,000; H. R. Marye and Thomas Davis, Forsyth; and L. W. Carpenter, Lame Deer.

Diamond Light Co. The offices will be in the Bank of Syracuse building, Syracuse, N. Y.; $1,000,000; Pres., P. L. Salmon; Vice-Pres., John Dunn, Jr.; Secy. and Treas., Theodore L. Poole. manufacture incandescent gas burners.

Bellingham Generator Co., New Whatcom, Wash.; to manufacture acetylene gas engines; $5,000; L. Mayhew, N. Hinsdale, W. L. Minturn, New Whatcom.

Suppl

PERSONA
Obitua
ENGINE
Comin
NEW PU
Trade
CONSTR
Conde
Railw
Street
Electr
Bridg
Build
Wate
Sewe
Garb
Stree
Manu
Gas
Misc
Cont
INDUST

Mr. F
master
Mr. F
enginee
Mr. J
neer, l
Pittsbu
Mr.
Engine
Mr. F.
Mr. I
Chicag
similar
Mr.
N. Y.
Canal
Mr.
gineer
for G
"Alta
Mr.
Divis
is to
falo,
Mr.
remo
St.,
as c
Mr
Main
Penn
by M
Mr
Man
poln
Divi
Mr
bers
fare
5, o
M
Rus
fro
to
ma
M
Ca
Su
su
the
N
ne
pl
ab
th
10
to
&
a
C
a
s
n
l